

A COMPARATIVE STUDY OF THE
USE OF MICROTEACHING
AND
AN ANALYSIS OF FACTORS
WHICH AFFECT ITS USE
IN ONE YEAR POSTGRADUATE
TEACHER TRAINING COURSES

by

GEORGE KENDALL

Submitted in partial fulfilment
of the requirements for the degree of
Doctor of Philosophy in the
Department of Education
University of Natal

DURBAN

1985

I hereby state that the whole of this thesis, unless specifically indicated to the contrary in the text, is my own original work and that it has not been submitted for any degree in any other university.

George Kendall

University of Natal

July, 1985.

ABSTRACT

This thesis is concerned with a study of the use of microteaching in the one year postgraduate teacher training course. It consists of two national surveys using two types of questionnaire, an Organisation and an Attitude Questionnaire. Education tutors and Subject Method tutors in United Kingdom universities, polytechnics and colleges offering one year postgraduate courses were requested to complete questionnaires about their use of microteaching and about their attitudes towards it. Visits were arranged to meet the staff involved and to see the type of facilities available. A similar survey was conducted in Departments of Education in South African universities.

A comparative study of the use of microteaching in one year postgraduate teacher training courses was carried out on the data that was accumulated from the two surveys. Some interesting points of comparison can be made both on the types of microteaching organisation that have evolved in the two very different education systems and on the different attitudes of staff towards the use of microteaching.

Based on the United Kingdom data, an in-depth study of the factors affecting the use of microteaching, was carried out. This study was related to the changes in teacher training in the United Kingdom during the seventies, following the publication of the James report, leading to a more professional approach to teacher training and the evolution of school-based training courses.

Significant differences in the responses to the Organisation and Attitude Questionnaires from the different types of institution were examined using Chi-square. The Attitude data was examined for various groups of teacher training staff, who differed in their approaches to the organisation of microteaching because of, for instance, the different facilities available, the length of time available, the size of the student group or the logistics of the microteaching programme, by the use of Chi-square and significant differences in the responses of the different groups were reported.

The results from the surveys were analysed and related to the research findings as published in the literature to see how the practitioners of teacher education differ in their views and approaches to microteaching from those responsible for the research into microteaching.

Factor analysis of the responses to the Attitude Questionnaire from the different types of training institution, i.e. United Kingdom universities, polytechnics and colleges and South African universities, was carried out to examine the significant underlying factors which influenced the responses.

The findings of the study identify economic, organisational and philosophical factors which affect the way microteaching is used. These factors and the recent developments in postgraduate teacher training courses in the United Kingdom are examined for their possible implications for postgraduate teacher training in South Africa.

ACKNOWLEDGEMENTS

The author would like to express his thanks to the following individuals and institutions who have contributed in diverse ways to this study:

The University of Natal for the provision of a sabbatical leave together with an overseas leave allowance, which enabled the author to spend several months in the United Kingdom in order to obtain information about the current use of microteaching in postgraduate teacher training institutions, to provide the opportunity for visiting libraries and to meet a variety of people who were working in this area.

Professor Alec Ross and the University of Lancaster for providing the author with an Honorary Lectureship during the period of his sabbatical leave. The office facilities in the Department of Educational Research were invaluable in providing a base for the production, distribution and collection of questionnaire material.

The Human Sciences Research Council who provided a research bursary which contributed to the cost of the study. Opinions expressed or conclusions reached are those of the author and are not to be regarded as those of the Human Sciences Research Council.

Professor Paul Beard, Head of the Department of Education of the University of Natal in Durban who supervised the study and gave help and advice when needed.

Dr. Alan Simon, Lecturer in the Department of Education of the University of Natal (Durban) who helped to clarify the sampling procedures.

Dr. Kevin Ryan and Dr. Linda Haines, Senior Lecturers in the Department of Biometry and Statistics of the University of Natal (Pietermaritzburg) who helped to clarify the statistical procedures.

Dr. Bruce Faulds, Senior Lecturer in the Department of Psychology of the University of Natal (Pietermaritzburg) who helped to clarify the use of Factor Analysis.

Mr Ivan Gregory, Senior Lecturer in Education of the University of the Witwatersrand who, through his own enthusiasm for microteaching, contributed in the early stages and maintained an active interest in the progress of the study.

The staff of the Computer Services in the University of Natal who introduced the author to the use of the Sperry, to SPSS and to word processing and who gave advice and assistance when it was needed.

The very many staff members of the United Kingdom universities, polytechnics and colleges and of the South African universities who gave up their time, not only to complete the questionnaires, but to comment on and discuss their microteaching programmes.

CONTENTS

<u>ABSTRACT</u>	i
<u>ACKNOWLEDGEMENTS</u>	iii
<u>INTRODUCTION</u>	1
<u>CHAPTER 1</u>	4
<u>IDEOLOGIES OF TEACHER TRAINING</u>	
1.1 <u>Traditional college-based model of teacher training</u>	4
1.2 <u>Post-James developments in teacher training</u>	11
1.3 <u>School-based model of teacher training</u>	16
<u>CHAPTER 2</u>	19
<u>DEVELOPMENT OF MICROTEACHING</u>	
2.1 <u>Early developments</u>	19
2.2 <u>Uses of microteaching</u>	20
2.3 <u>Trends in research on microteaching</u>	22
2.4 <u>Surveys of microteaching</u>	25
2.5 <u>Place of microteaching in teacher training</u>	29
<u>CHAPTER 3</u>	33
<u>RESEARCH DESIGN</u>	
3.1 <u>Acquisition of data</u>	33
3.2 <u>Procedure adopted</u>	35
3.3 <u>Responses to the Preliminary Questionnaire</u>	38
3.4 <u>Design of the research instrument</u>	41

3.5	<u>Rationale of the research design</u>	42
3.6	<u>Qualitative and quantitative analysis of data</u>	44
 <u>CHAPTER 4</u>		49
<u>RESULTS FROM THE ORGANISATION QUESTIONNAIRE</u>		
4.1	<u>Type of institution UPC</u>	49
4.2	<u>Subject area SUBJ, SUBJGP</u>	50
4.3	<u>Number of students organised A4</u>	52
4.4	<u>Number of academic staff A5A</u>	52
4.5	<u>Number of technical staff A5B</u>	53
4.6	<u>Compulsory microteaching A6</u>	53
4.7	<u>Lecture time for microteaching A7A</u>	54
4.8	<u>Practical time for microteaching A7B</u>	54
4.9	<u>Length of microteaching session A8</u>	55
4.10	<u>Staff hours of preparation A9A</u>	56
4.11	<u>Staff hours of student contact A9B</u>	56
4.12	<u>Number of students in session A10</u>	57
4.13	<u>Mixed or single subject groups A11</u>	57
4.14	<u>Length of microlesson A12</u>	58
4.15	<u>Type of pupils for microlessons A13</u>	58
4.16	<u>Number of pupils for microlessons A14</u>	59
4.17	<u>Type of preparation for microlessons A15A-C</u>	59
4.18	<u>Type of supervision A16</u>	60
4.19	<u>Use of observation schedules A17</u>	61
4.20	<u>Type of feedback A18</u>	61
4.21	<u>Type of discussion of microlesson A19</u>	62
4.22	<u>Timing of discussion A20</u>	62
4.23	<u>Use of reteach lessons A21</u>	63
4.24	<u>Number of microlessons A22</u>	63

4.25	<u>Type of skills specified</u>	64
4.26	<u>Type of microteaching format</u>	65
4.27	<u>Studio/room facilities A25</u>	67
4.28	<u>Technical facilities A26A-C</u>	67
4.29	<u>Recording of microteaching A27</u>	68
4.30	<u>Relation with school practice periods A28A</u>	69
4.31	<u>Assessment of microteaching A29</u>	69
4.32	<u>Type of assessment A30, A31</u>	70
4.33	<u>Maintenance of electronic equipment A32</u>	71
4.34	<u>Correction of faults A33</u>	71
4.35	<u>Abandoning due to faults A34</u>	72
4.36	<u>Time operating microteaching programmes A35</u>	72
4.37	<u>Comments from Organisation questionnaire</u>	73
 <u>CHAPTER 5</u>		76
<u>RESULTS FROM THE ATTITUDE QUESTIONNAIRE</u>		
5.1	<u>Physical and technical facilities</u>	77
5.1.1	Physical facilities X11	77
5.1.2	Technical sophistication X12	78
5.1.3	Technical staff X13	83
5.1.4	Physical and technical facilities X1	85
5.2	<u>Preparation for microteaching</u>	87
5.2.1	Content of lessons X21	87
5.2.2	Planning of microteaching lessons X22	89
5.2.3	Preparation for microteaching lessons X23	90
5.2.4	Lectures v handouts on teaching skills X24	95
5.2.5	Needs of students v needs of pupils X25	96
5.2.6	Preparation for microteaching X2	98

5.3	<u>Supervision of microteaching</u>	99
5.3.1	Tutor supervision and feedback X31	100
5.3.2	Peer group supervision and feedback X32	101
5.3.3	Value of observation schedules X33	103
5.3.4	Assessment X34	106
5.3.5	Supervision of microteaching X3	107
5.4	<u>'Reteach' lessons</u>	109
5.4.1	Teach/reteach interval X41	109
5.4.2	Microteaching programme - reteach X42	111
5.4.3	Value of reteach lessons X43	112
5.4.4	'Reteach' lessons X4	113
5.5	<u>Immediate objectives</u>	116
5.5.1	Objectives I X51	116
5.5.2	Objectives II X52	118
5.5.3	Practice and assessment of specific skills X53	119
5.5.4	Immediate objectives X5	121
5.6	<u>Effects of microteaching on students</u>	123
5.6.1	Effect of microteaching on the student X61	123
5.6.2	Relevance of microteaching for students X62	125
5.6.3	Confidence of students X63	127
5.6.4	Analytic/prescriptive v creative/originality X64	128
5.6.5	Effects of microteaching on students X6	130
5.7	<u>Philosophical factors</u>	132
5.7.1	Cosmetic effect of microteaching X71	133

5.7.2 Preparation for school teaching practice	135
X72	
5.7.3 Skills approach to microteaching X73	138
5.7.4 Behaviour modification approach to	141
microteaching X74	
5.7.5 Philosophical factors X7	145
5.8 <u>Relation of microteaching to other courses</u>	146
5.8.1 Relation to psychological theory X81	146
5.8.2 Microteaching and educational sociology	148
X82	
5.8.3 Microteaching and other courses X83	150
5.8.4 Relation of microteaching to other	151
courses X8	
5.9 <u>Economic factors</u>	153
5.9.1 Use of lecturers' time X91	154
5.9.2 Provision of physical facilities X92	156
5.9.3 Provision and maintenance of equipment	158
X93	
5.9.4 Provision of school children X94	159
5.9.5 Preparation and planning time X95	162
5.9.6 Economic factors X9	163
 <u>CHAPTER 6</u>	 165
 <u>CONCLUSIONS AND IMPLICATIONS</u>	
6.1 <u>Conclusions from the investigation</u>	165
6.1.1 Conclusions from the United Kingdom	166
survey	
6.1.2 Conclusions from the South Africa survey	175

(x)

6.1.3 Comparison between United Kingdom and South Africa	181
6.1.4 Identification of factors affecting the use of microteaching	185
6.2 <u>Implications arising from the investigation</u>	189
6.2.1 Implications for teacher training	189
6.2.2 Implications for South Africa	216
<u>APPENDIX 1</u>	222
<u>APPENDIX 2</u>	254
<u>APPENDIX 3</u>	289
<u>BIBLIOGRAPHY</u>	300

INTRODUCTION

When the research study was first motivated the author was concerned about the limited benefit that appeared to be derived by the practitioners of microteaching, in the teacher training courses that they were operating, from the vast amount of material produced by the researchers into the many and various aspects of microteaching. The logistics of operating a microteaching programme and of incorporating it into an already overloaded teacher training course were such that it appeared impossible to build such a programme on a sound research basis. The author was familiar with the kind of research studies in which the staff of a teacher training institution participated before making more wide spread use of microteaching. A relatively small experimental group of students are used to investigate the effectiveness of a microteaching programme and compared with a control group not experiencing microteaching. Local examples of such studies are those by Soobiah (1981) and van Os (1981). The planning and preparation of a course for a small experimental group can be of limited value in repeating the operation for the total population of students, the two kinds of operation are likely to be quite different types of logistical exercise. There seemed to be a need for a research study with a wider base to investigate the details of microteaching programmes as they were being offered in teacher training courses and see how these compared to the research findings. The study was limited to the use of microteaching in the postgraduate teacher training course, because the design of a one year teacher training course for graduates is very different from the course offered to school leavers and spread over a number of years. Any findings in one area are likely to have little significance in the other.

The study was initially aimed at the South African situation, but was extended to include the United Kingdom in order to draw on the experience of a wider population of postgraduate teacher trainers. This extension of the study not only enabled a greater depth of study to be achieved but added new perspectives, which in themselves may be of significance to the South African situation as many innovations in education at all levels often follow the development and implementation of new ideas overseas.

The thesis, as presented, first looks at the nature of teacher training courses as they

developed in the universities at a postgraduate level. The use of microteaching cannot be divorced from the whole structure of which it is likely to be a comparatively small part. The changes, which have taken place in postgraduate teacher training courses in the United Kingdom, from the traditionally theoretical, academic, largely campus-based course to, in varying degrees, the more professional, practical course with increasing attention being paid to school-based experiences, are examined in detail in Chapter 1. These developments of the seventies and eighties are, in themselves, likely to have a significant effect on their South African counterparts.

Chapter 2 examines the development of microteaching generally, since its initial use at Stanford University in the sixties. The commentary at this stage draws attention to the empirical and pragmatic nature of those early developments. From the start, microteaching was advocated, not only as a new, novel and effective way of training teachers, but as an ideal research technique into the nature of the teaching process itself. Because this study is looking at the relation between research findings and practice, reference to the main research results have been left to Chapter 4, where they can be discussed with the findings of the present study. At this stage the thesis reports on the type of approach adopted in microteaching research and the discussion in the literature on the relation between research and use. As the findings of this study are ultimately based on surveys of the use of microteaching in postgraduate teacher training a report on the findings of other recent surveys is included, even though they embrace initial teacher training courses other than the postgraduate course.

Chapter 3 is concerned with the design of the research study, which consists of a survey of the organisation of microteaching and of the attitudes towards microteaching of members of staff in postgraduate teacher training courses in the United Kingdom and in South Africa, including the Homelands. The Organisation Questionnaire provides information about what actually is happening, according to the members of staff responsible for the microteaching programmes. The Attitude Questionnaire provides information about what the staff members feel about microteaching in relation to particular aspects of the whole programme. As the results of the United Kingdom survey showed that microteaching was more usually part of the subject method courses, particularly in universities, it was possible to obtain attitude feedback on microteaching from those staff members not actually using microteaching as part of their

overall programme.

The results of the responses to the questionnaires are reported in great detail for the Organisation of microteaching, in such a way that they enable a comparison to be made between South African universities and United Kingdom universities, and between postgraduate teacher training in other institutions in the United Kingdom other than universities. This is particularly useful as in many ways the patterns of organisation, the size of the student intake and the attention paid to a general didactics approach in South African universities is more like those in the United Kingdom polytechnics and colleges. The Attitude Questionnaire results, which identify broad factors which may affect the use of microteaching, are examined in greater depth to identify how they are influenced by the particular factors that staff members build into their microteaching programmes and they relate to the detailed research findings, as identified in the literature. The main analysis of the data is conducted on the United Kingdom responses and the comparison with the South African responses is made where it is appropriate.

The data from the detailed and elaborate surveys are used to identify the significant factors which affect the use of microteaching in postgraduate teacher training programmes, by using a variety of statistical techniques. The United Kingdom data adds a further perspective to the study by introducing innovative practices in teacher training that are currently being explored and that are likely to have great significance to developments in postgraduate teacher training in South Africa.

CHAPTER 1

IDEOLOGIES OF TEACHER TRAINING

1.1 Traditional college-based model of teacher training

It is not intended that this chapter will survey the historical development of teacher education. It is sufficient to say in this context that the development of teacher education is very well documented and that, with the attention given to teacher education in recent years, some extremely comprehensive descriptions of the growth of teacher education in the United Kingdom have been more recently published (Dent 1977; Lomax 1973; Lynch 1977), as well as those with a wider sphere of reference covering Europe and the U.S.A. (Lomax 1976; Richardson et al 1953) and those on education in South Africa (Behr & MacMillan 1971; Behr 1984).

It is useful, even so, to note the sequence of events in the United Kingdom that led to the traditional college-and university-based approach to teacher training, because of its implications to the English speaking world, including that section of South African society, if not the nation as a whole.

The first significant event, for England and Wales, was the Report of the Cross Commission in 1888 which recommended that day training colleges should be provided in university institutions as part of the public provision for teacher training to supplement that provided by some forty-three private, usually denominational, residential colleges. The first Chairs in education had been established in Scotland at Edinburgh and St. Andrews in 1876 and, as a result of the Cross Commission, Wales followed with Chairs at Bangor in 1894 and Aberystwyth in 1895. The first Chair of education in England was at Durham in 1895, with Manchester, Liverpool and London following suit by the end of the century. Such training institutions were initially concerned with only training for elementary schools, the growth of secondary training was much slower, due "...partly to the reluctance of the authorities of secondary schools to accept the principle of training" (Lomax 1973: 85) and to the fact that there were few secondary schools financed by public funds until after the 1902 Education Act.

In the same period, as entry levels improved, students were allowed to take academic courses recognised for degree purposes, so that by 1911 the Board of Education recognised training departments attached to universities providing a four year course, in which the first three years were devoted to the study for a degree and the fourth or professional year for teaching (Dent 1977). However, the Board of Education still maintained control of all training curriculum through its own examinations until 1926 when the responsibility for examinations was handed over to the different universities, leading to the eventual establishment of Area Training Organisations and Institutes of Education with direct responsibility for the teacher training colleges located in the area around the university, by the implementation of the McNair Report in 1944.

Clause 85 (iii) of the South Africa Act of 1909 set the stage for education in South Africa when it gave the following powers to provincial councils by stating:

"Education, other than higher education, for a period of five years and thereafter until Parliament otherwise provides."

This principle was retained and eventually incorporated in the Republic of South Africa Constitution Act of 1961 under Clause 84 (i) (c) as:

"Education, other than higher education and Bantu education, until Parliament otherwise provides."

Hence, the authority and responsibility which had existed in the old colonies was confirmed and retained. Teacher training was a responsibility of the normal colleges which had been created in the Cape in 1878, in the Transvaal in 1902 at Pretoria and 1909 at Johannesburg and in the Orange Free State in 1902 at Bloemfontein. The normal colleges followed the development of normal schools named after the 'écoles normales' introduced into France by Guizot in 1834. Natal established a Teachers' Training College at Pietermaritzburg in 1909.

In 1916 the University Act made provision for three universities, the University of South Africa with its constituent colleges, the University of Cape Town based on the South African College founded in 1829 and the University of Stellenbosch, which had been Victoria College since 1887. Those institutions that became the universities of Stellenbosch and Cape Town were the first to begin the training of teachers and the first professors of education were appointed in 1911, leading to the first undergraduate and postgraduate teacher diplomas in the early nineteen twenties. Similarly many of the constituent colleges of the University of

South Africa had set up departments of education and by 1951, those that remained had become the universities of Pretoria (1930), Rhodes (1951), Natal (1949), the Orange Free State (1950) and the Witwatersrand (1921). Potchefstroom University was given its own charter in 1951 having become a constituent college in 1921 and, with Pretoria was also involved in teacher training. In 1951 the University of South Africa, without its constituent colleges, was re-constituted as a university for external students mainly through correspondence. Between 1960 and 1961 new constituent colleges were established leading to full university status for the Western Cape, Durban-Westville, Zululand, Fort Hare and the North by 1969. The granting of political independence to Transkei in 1976, Bophuthatswana in 1977 and Venda in 1979 has led to the establishment of the most recent universities in those national states. Only the University of the Transkei, however, is offering a postgraduate teacher training course (Behr & MacMillan 1971).

The need for a thorough investigation on a national basis into all facets of teacher training came to the fore in Parliament in 1962 and led to the Gericke Report, which drew attention to the lack of uniformity of the training of White persons as teachers in the Republic – "There is really no systematic and scientific system of teacher-training" (Gericke 1969: 3). Although all postgraduate teacher training had been conducted by university departments of education, the National Education Policy Amendment Acts that followed the Gericke report placed the responsibility for all secondary teacher training for Whites in the universities. The whole pattern of teacher preparation was set out by the Committee of Heads of Education (CHE) in 1972 (revised in 1974) in a document which contained details of the structure of courses, the basic requirements of subjects to be taken, curricula and syllabuses (Behr 1984).

With further reference to the development of postgraduate teacher training in the United Kingdom, however, it is particularly relevant to the present study to note:

"In the period of freedom from the Board's regulations from 1926 onwards, the final-year professional courses in the university departments of education took on the form which many of them continued to have until comparatively recent years. The school management and theory of teaching courses were differentiated into separate subjects known as principles of education, the history of education, hygiene or health, educational psychology and the methods of

teaching."

(Lomax 1973: 93)

Hence, in describing a proposed university course towards the end of the second World War, Oliver identifies "the functions a teacher has to fulfil in helping children to grow up in a democratic society" and maintains that "the University education and training of the teacher must be such as to enable him to fulfil these functions" (Oliver 1943: 18). The way he formulates the characteristics of such a teacher demonstrates the inherent conflict in this traditional approach to teacher training, since, if his ordering of the items is intended to indicate any priority, it appears to be contradicted by the use of "above all":

"...a teacher must be something of a philosopher and a scientist, and above all an artist or a craftsman. He must have a mature and reasonably coherent outlook on life, a philosophy which embraces the values of democracy. He must know what children are like and how they grow up, and he must be knowledgeable about the world in which we live. It will be an advantage if he is master of one or more particular fields of knowledge or skill, and he must know the workings of the educational system of which he forms part. Above all, he must be skilled in ways of helping children to make the most of their lives for their own sakes and for the sake of their fellows."

(Oliver 1943: 18)

The details of such a course would include:

1. Health and Physical Training.
2. Clear Thinking and Expression in English.
3. Philosophical Studies.
4. The Study of Children.
5. Social Studies.
6. The Principles and Practice of Teaching.
7. Special Subjects – not common to all teachers.

and include the familiar components of the traditional theory-loaded, content-oriented, college-based teacher training programme. His comment about the traditional written examinations following each course is particularly interesting bearing in mind that these ideas did not reach fruition until almost another forty years:

"Too often the work of students is distorted from its best form by a cumbersome machinery of terminal and annual examinations.....examinations almost inevitably lay the emphasis on the memory of facts as generalisations rather than on the understanding of them in such a way that they are available for use in other situations."

(Oliver 1943: 21)

o Campbell-Stewart prefaces his approach to possible content for a teacher training course by saying:

"When graduates enter a University Training Department many people consider them lost to the pure uplands of scholarship, squelching steadily into the marshes of technical education.

What follows here is written in the conviction that to prepare teachers for their profession is not just to add techniques to the proficiencies of people already educated. In helping teachers to prepare for their work one is committed to considering the validity of all that goes by the name of education, and so, inevitably, to encouraging the range of personality that can view these issues with penetrating candour. One such issue is the content of and methods in the courses of preparation themselves, particularly in the philosophical, psychological and sociological work."

(Campbell-Stewart 1950: 1)

He then identifies four main aspects of study for the training of teachers by University departments:

1. The methodology of subjects in school, linked with the psychological development of children and adolescents and with the general principles of school curricula.
2. The history of the education system and the understanding of how it came to be as it is.
3. The whole theme of the nature of education and of values in education i.e. The Aims (or Philosophy, or Theory) of Education.
4. The practical experience of teaching, involving practice and theory of

classroom management, administration and school organisation.

Again, it is interesting to note the sequence of these course components, particularly as he then goes on to elaborate in great detail the content of the philosophy, psychology and sociology acknowledging that "one of the main problems of the whole training course is to avoid overlapping to any wasteful degree" (Campbell-Stewart 1950: 2). The actual professional preparation, the fourth component, tended to be left to the teaching practice experience that the student would have when attached to a school staff. Hence, the course became divided into theory and practice, with the former being given the greater attention by the teacher trainers in the structured time on the university campus and with the latter being left more to chance, depending upon the staff of the particular school in which the student was placed.

Similarly, Richardson notes that:

"On the more theoretical side, the main purpose of the training course for graduates is threefold: To enable the student to keep up the study of the special subject in which he took his degree, to instruct him in educational philosophy and psychology and in the principles of teaching, and to extend his knowledge and skill....to other school subjects and activities in which he may be called upon to play a part as a member of a corporate school staff."

(Richardson et al 1953: 86)

whereas the practical component, teaching practice, is seen as the time when the student obtains a variety of classroom and school experiences, "for only thus can they hope to attain the breadth of vision essential to the understanding of the nature and problems of the educational process in general and of the purpose of universal secondary education in particular" (Richardson et al 1953: 86).

The student was left to bridge the gap between the theoretical ideas he was exposed to in the 'ivory tower' and the situations that he experienced on his own at the 'working face' of the classroom.

The post-war years saw considerable changes in the nature of teacher education. The Robbins report of 1963 led to an all-graduate teaching profession and the introduction of the four year B.Ed. degree by 1968. At the same time, following the increase in numbers of universities and of university departments of education, the status of universities, as the only degree-and higher degree-awarding bodies, came under pressure with the development of

polytechnics and the Council for National Academic Awards (CNAA), as a permanent major degree-awarding body. A variety of experiments and innovations in teacher education became possible, such as Education as an undergraduate subject (e.g. York, Warwick, Wales), the emergence of sociology of education as a major separate area of study, the approach to examining (Bristol department of education gave up formal examinations in the 1920's), the development of teaching aids and audio-visual facilities, curriculum reform and its effect on the methods of teaching school subjects.

The theoretical emphasis is also apparent in the 'Criteria for the Evaluation of South African Qualifications for Employment in Education' which, although they came into operation with effect from 1 January 1972, in many cases seemed to confirm and entrench the pattern of teacher training that already existed, even though a more flexible interpretation could be permitted. Among the minimum course requirements for a one-year postgraduate Higher Diploma in Education for the secondary school are listed:

"Education (Pedagogics) which must include at least the following five subdivisions of the discipline:

History of Education

Philosophy of Education

Psychology of Education

Didactics

Sociology of Education

(School Guidance and Counselling and Organisation and Administration of Education must be included.)"

(CHE 1974: Para 11.4.11.3)

This theoretical loading is all the more marked when it is noted that only "At least six weeks' practice teaching is a minimum requirement for full-time and extra-mural training...." (CHE 1974: Para 11.4.11.6). It is particularly interesting that the South African Criteria should come into operation in the same year (1972) that the report of the Committee of Inquiry chaired by Lord James of Rusholme, 'Teacher Education and Training' (HMSO 1972), was published in the United Kingdom, preceding wide scale innovation in all forms of initial teacher training.

1.2 Post-James developments in teacher education

During the late 1960s there arose a widespread demand for a thorough investigation of the education and training of teachers in England and Wales. One of the contributing factors was a survey of some three thousand first year teachers undertaken by the University of Bristol for the Department of Education and Science (DES) which identified particular deficiencies in the initial training and many weaknesses in the induction process (Taylor 1978). A Select Committee of the House of Commons appointed in 1968 to investigate the entire spectrum of Education and Science turned its attention to the training of teachers and evidence accumulated to support the view that teacher education ought to develop within the wider perspective of tertiary education as opposed to the monotronics in which 80% of teachers were presently trained. The Committee of Inquiry appointed under Lord James's chairmanship in fulfilling its terms of reference "offered a novel and ingenious, but extremely controversial, scheme of education and training consisting of three 'Cycles'" (Dent 1977: 150), to which bodies like the Association of Teachers in Colleges and Departments of Education (ATCDE) responded by rejecting Cycle 2, i.e. two years of preservice training in a college and induction in a school for all teachers (ATCDE 1972), and which led to the Government's formulation of its policy (HMSO 1972).

It is interesting to note the comment made by Behr when he writes:

"It would seem (from the foregoing and what is to follow) that many of the new developments in teacher education in South Africa have elements in common with the James Committee recommendations."

(Behr 1984: 100)

particularly bearing in mind the post-James developments in the United Kingdom which resulted in the Department of Education and Science recognising

"...new perceptions by the clients of the education service of what the service, and in particular the schools, should do; new approaches by those responsible for curriculum policy to the school curriculum; institutional reorganisation in teacher training; and changes in the arrangements for validating it."

(DES 1984)

Teacher training in the United Kingdom did not remain static with the publication of the James report, in the way that it tended to in South Africa following the publication of the Criteria (see Page 14 above).

Many different professional organisations have been involved in the examination of education in the United Kingdom following the publication of the James' proposals. Recent years have seen a number of different reports published. 'Aspects of secondary education in England' reported that a large amount of teaching was carried out by teachers who were not well qualified in the content of what they were teaching (HMSO 1979). 'Primary education in England' reported that many teachers were not adequately prepared for the range of the primary curriculum they were required to teach (HMSO 1978). 'The new teacher in school' (HMSO 1982) reported the lack of confidence of many teachers (one in ten) when they were teaching subjects for which they had apparently been prepared in their training and that this insecurity led to an overprescriptive approach, heavy reliance on the textbook and an inability to follow up and extend pupils' answers. Similarly the Universities Council for the Education of Teachers (UCET) set up Working Parties to report on the preparation of specialist teachers for secondary schools (UCET 1979) and for those in middle and primary schools (UCET 1982). The former reports an "increasing consensus amongst those in training institutions about the aims and methods" of Post-Graduate Certificate of Education (PGCE) courses for secondary specialist teachers and a "now sharp appreciation of the need for courses to be at one and the same time practically realistic and theoretically informed" (UCET 1979: 16). It reports on the growing consensus about the kinds of methods the best professional training must employ and on the topics which must be given attention "an emphasis being placed on those that concern class-room responsibilities whilst the wider professional responsibilities of the young teacher are properly recognised" (UCET 1979). Hence a PGCE curriculum, together with induction and other forms of in-service training, is now seen to consist of the following topics:

"Nature of the subject(s) and relationships with others.

Aims and objectives in teaching the subject(s) including questions of literacy and numeracy.

Syllabuses and curriculum projects.

Learning processes for the subject(s).

Motivation of pupils.

Teaching methods, skills and the language of teaching.

Class, group and individual work.

Projects, visits, local studies.

Teaching exceptional children, e.g. the 'special' education group, the specially gifted.

Use of equipment, resources and development of materials.

Planning lessons and sequences.

Assessment techniques and the use of records.

Class management and dealing with disruptive behaviour.

Pastoral care including health concerns and relations with parents.

Religious, moral and social education in a multi-cultural context.

The organisation of the school.

The school, the community and the educational system.

The teacher and the law.

The teaching profession and professional associations."

(UCET 1979)

The report stresses the need for closer cooperation with the schools, the need to challenge the previous sharp division into 'theory' and 'methods' courses, with their separate and unrelated assessments. In particular, the traditional curriculum of separate disciplines contributing to educational theory is rejected for two major reasons:

"First, it has come to be recognised that the study of teaching methods and the preparation of students for practical work are both intensely theory-loaded activities. Beliefs of, say, a psychological and sociological character underlie every area of practical teaching. The question is never one of whether practice should pay any attention to theoretical beliefs, but rather whether the theoretical beliefs any practice presupposes are in fact valid. Properly professional study of teaching methods and preparation for teaching activities must therefore itself involve significant theoretical study. Secondly, it is now recognised that if educational theory, in any of its branches, is to influence teaching activities in schools, it must be directly related to those activities. Understanding theory and being able to use it in the analysis of practice and the making of practical judgements are two quite different things. It is therefore important for professional training that within the course itself the educational theory included be put to work by students in the analysis of practice and the

making of practical judgements."

(UCET 1979: 11)

The Council for National Academic Awards as the body responsible for the validation of the majority of PGCE qualifications in the public sector, established its own Working Party and published its own recommendations, which are very much in line with those already quoted (CNAA 1984b). The report comments on the 'squeeze' of the traditional Education Studies, adding "It hardly seems tenable nowadays to argue for the preservation of the educational disciplines in their discrete form" (CNAA 1984b: 11), favours a school-based approach to the PGCE and the separation of primary training from secondary, "Courses have developed a long way from the time when Primary Education was regarded as just another subject riding on the back of the Secondary route" (CNAA 1984b: 10). In its 'Notes of Guidance for the PGCE', the Council, among other recommendations, emphasises the need for patterns of assessment to reflect the course objectives and "Written examinations of a traditional kind may be appropriate but in most schemes other forms of assessment are preferred: various course work assignments, projects, reports on school experience" (CNAA 1984a: 3). Similarly the Advisory Committee on the Supply and Education of Teachers produced 'Criteria for the Approval of Initial Teacher Training Courses' (ACSET 1984) attached importance to the selection procedures for initial training - "Participation of experienced practising teachers in the selection process is desirable" (CNAA 1984a: 1), entrance qualifications, essential elements for all training courses and the need for close liaison with practising teachers in schools. These recommendations were submitted to the various professional bodies for their reactions and the author was informed by the Chairman of the Polytechnics Council for the Education of Teachers (PCET) that they were in line with the policy of that body (Middlebrook 1984). This has led to the establishment of a single Council for the Accreditation of Teacher Education to ensure that institutions conform to the criteria as laid down by the Secretaries of State for Education and Science, criteria based on the recommendations already identified in the White Paper 'Teaching Quality' (HMSO 1983) and in the recommendations from ACSET for Qualified Teacher (QT) status, including a minimum of 36 weeks, joint responsibility with experienced teachers from local schools working in close partnership for planning, supervision and assessment of teaching practice and for the training on the campus, regular and frequent teaching experience for those involved in the instruction of pedagogy, a substantial element of school experience and teaching practice (15 weeks),

minimum General Certificate in Education (GCE) entrance requirements in English and Mathematics, personal qualities for teaching, as well as a curriculum balance between educational and professional studies (ACSET 1984).

"The time was when students appeared as isolated birds of passage for 'teaching practice', occasionally visited by an external supervisor. But now the 'student season' has expanded and they appear to clutter up staff rooms in larger groups throughout the year muttering mysteriously about 'school experience' and 'induction programmes'."

(Hadley 1982: ix)

Hence the changes noted in the PGCE, as for other teacher training courses, have not only affected those institutions providing the courses but have had a great effect on the school staffs who have to adapt their professional expertise to student teachers and college tutors in different ways depending upon whether the student is present in the school for an initial school experience prior to starting initial training, a short exploratory teaching practice, a continuous one-day a week school experience prior to teaching practice, the long period of teaching practice when a formal assessment is made, or as part of the induction programme for the newly qualified teacher. The change in approach to teacher training is all the greater for those staff who in their own initial training experienced "lecture courses on Philosophy, Psychology, Sociology and History of Education (which) had little relationship to the 'practice' they observed or engaged in while actually teaching" (Hadley 1982).

During this period a number of major surveys of teacher training funded by the DES have taken place, the significant one in the context of this study is the SPITE Project (Structure and Process of Initial Teacher Education), based at the University of Leicester and confined to an examination of departmental methods, course content and structure, aims and objectives in thirty university departments of education offering PGCE courses in England and Wales (Patrick et al 1982). Evidence was collected from students and staff during the period 1979/80 and indicates, amongst a wealth of detailed information, that the "nature of PGCE work is surrounded by unresolved problems. The tutors prepare students for a very uneven teaching profession who work in schools which differ greatly in their quality and ethos" (Patrick et al: 206).

By comparison the changes in the South African courses are minimal. The Criteria

implemented in January 1972 has tended to establish a comparatively short teaching practice (see Appendix 1.5) alongside the traditional educational disciplines, as listed in the previous section 1.1. Since 1979 the HDE(PG) as offered by South African universities has been unacceptable for QT status in the United Kingdom, as a minimum of 12 weeks supervised teaching practice in a 30 week course is now required (DES 1984). However the establishment of the South African Teachers' Council (SATC) on 1 January 1977 with its control over the members of the teaching profession and its increasing interest in having some say in the training of students before they are accepted into the profession (SATC 1984) may well foreshadow events in South Africa similar to those that are reaching fruition in England and Wales, bearing in mind "that problems of evaluation and the criteria relevant for entry into teaching prove difficult issues to resolve" (Patrick et al 1982: 206).

1.3 School-based model of teacher training

The development of PGCE courses in the United Kingdom with at least 12 weeks devoted to teaching practice, or 15 weeks of school experience and teaching practice, is in marked contrast to the minimum of 6 weeks as laid down in the South African Criteria or to the 8 or 9 weeks commonly employed by some universities in South Africa. The professional involvement of practising teachers in the training of student teachers in the United Kingdom is also in marked contrast to the pattern existing in most South African universities. These two features have now become the norm for PGCE courses and it is important that this be emphasised in order that the school-based model of teacher training be seen in its proper context.

A number of institutions in the United Kingdom have been implementing a school-based approach for a number of years. The PGCE course at the University of Sussex is one of the oldest (established in 1972) of these school-based courses and, in some ways, may be regarded as typical. The distinctive features of the Sussex model are that teachers are appointed in school by the University to take a major responsibility for supervising and assessing the student's training experience, for much of the year three days of each week are spent in school, two days in the university, as well as a block practice, and assessment is continuous and not by formal examination.

"These features reflect the commitment of the University to the beliefs:

- (a) that students learn the craft of teaching best by working alongside experienced colleagues and sharing the life of a school over an extended period;
- (b) that 'theory' should feed off 'practice';
- (c) that the competitive grading of students on a professional course is both invalid and unnecessary."

(West 1983: 2)

A more recent and wider based experimental project was the IT-INSET, operated and evaluated by the Open University.

"IT-INSET is a school-focused programme of combined initial and in-service teacher education. It involves training institution tutors, each with one or two groups of up to about six students, working cooperatively with teachers in their classrooms, for half a day or one day per week. This arrangement continues for at least one term and ideally, throughout the greater part of the initial training course."

(Ashton 1981: 1)

Twenty colleges were involved in the initial IT-INSET Project, most of the students were on B.Ed. courses though two colleges experimented with their last intakes of PGCE students and consequently the majority of schools (87%) were Primary or Middle. Numbers varied from a full year group of 135 to an option group of five. The most IT-INSET time was twenty days (three colleges) and the least five half-days (one college) with the average at seventeen half-days. Different areas of the curriculum were selected e.g. use of mathematical games, development of observation and drawing skills, use of space in a Nursery school, Integration of Art and Design in a Comprehensive school etc. A variety of team structures operated in the classroom, but, most commonly, each team member worked with a small group of children and often members were freed to act as observers. The focus of attention was on the development of skill in co-operative curriculum evaluation and development, strong influences of Lawrence Stenhouse's model of the teacher as 'researcher' seem to be implicit in the approach (Stenhouse 1975). Six interrelated components can be identified viz. analysing practice, applying theory, evaluating the curriculum, developing the curriculum, working as a team and involving other teachers in the school. Evaluation of the project was based on the analysis of written reports and, although room for improvement exists, the exercise is valued for its practical relevance, for

creating opportunities to discuss, evaluate and co-operate – this latter was endorsed by Chief Education Officers, Headteachers and the various team members (Ashton 1981).

Examples of other attempts at a school-based approach are also apparent. Cortis reports an evaluation of school-based training within a PGCE course in which two consecutive years of students were studied. The results were inconclusive, in that, although the first year group showed improvement, the second year group appeared to deteriorate (Cortis 1979). David Rogers describes a school-based PGCE (Art Education) course as it operates at Leicester Polytechnic, a diagram showing the time allocation and variety of school-based experience is included (see Appendix 1.7) indicating that approximately half of the course time is spent in schools. The University of Bristol operates a system of Schemes from which students choose to be actively involved with interested tutors and a group of pupils on a regular basis, once a week. Some Schemes operate for the whole year e.g. Youthwork, Informal Learning, Outdoor Education, Learning Enrichment, R.O.S.L.A. Projects etc; others operate for a term e.g. Study skills, Learning difficulties, Remedial education, under-achieving etc. (Hannam 1982).

It is evident that the school-based model of teacher training, with its emphasis on the relation of theory to practical experience, cooperation between tutors and teachers and curriculum evaluation as a team function, is very much in line with the policies advocated by the Inspectorate, the DES, the professional organisations (PCET, UCET) and the CNAA. Consequently the DES has set up an evaluation project at the University of Cambridge, over the period January 1983 to March 1986, of school-based training in the PGCE within four experimental training programmes – University of Sussex, Leeds Polytechnic, University of Leicester and Roehampton Institute of Higher Education. At present the members of the research team are identifying their *modus operandi* – fifteen to twenty students from each of the four institutions will be monitored during the academic year 1983-4 and during their first, probationary, year 1984-5 (Pocklington 1983, 1984, 1985).

With this background to some of the different ideological approaches to postgraduate teacher training, Chapter 2 looks at the origin and development of microteaching as a training technique in teacher education, in order to relate it to the different ideological approaches and to examine where its potential lies.

CHAPTER 2

Development of microteaching

2.1 Early developments

Like many developments in the application of educational technology in education, microteaching, in the early stages, was based on a number of different contributions that supported each other in a particular situation. Although it could be rationalised as an application of a systems analysis approach to the training of teachers, its origins were based on empirical findings and it was not the result of the application of a particular philosophy or as a result of research findings. Microteaching originated at Stanford University as a demonstration teaching exercise to jolt a group of liberal arts graduates out of their complacency towards the study of education (Allen & Ryan 1969), each intern teaching 5 or 6 other interns who played various roles e.g. Johnny Good-Guy, Jo Bee-Bop, Helen Happy-Girl, Carol Know-it-all, "professors and certainly the interns agreed that the experience was an over-dramatized, anxiety-producing session that helped no one" (Olivero 1970: 3). In 1961 Keith Acheson, a doctoral candidate, had discovered a newspaper article about a German scientist who had invented a portable video tape recorder – the Mactronic. The term 'microteaching' was coined in 1963 when the first experimental intern programme operated alongside a control group, with video recording used at regular intervals with the experimental group and as a means of evaluating both groups before and after the summer school. Drs. R.N. Bush and Dwight W. Allen obtained a Kettering Foundation grant "to examine those experiences which might be relevant for teaching interns in an innovative teacher education program" (Olivero 1970: 2). The United States Office of Education made a grant available to Frederick McDonald and Dwight Allen to investigate the use of videotape in the development of technical skills of teaching. From the very beginning microteaching was not seen as a static concept, "It continues to grow and change and develop both in focus and format" (Allen & Ryan 1969: 3). The details of this growth are well documented in the literature and indicate that a wide range of alternative approaches to the use of the new technique were explored, some successfully and

some unsuccessfully. Garrison developed the Stanford Teacher Competence Appraisal Guide, children were introduced as pupils and used to evaluate the interns performance, reteach cycles were introduced, specific teaching skills replaced the general technical skills and over the years a variety of skills were identified and refined (Allen & Ryan 1969). The main propositions of microteaching were identified as: real teaching, reduction in the complexities of normal classroom teaching, focus on specific teaching skills, allowance for increased control of practice and expansion of the feedback dimension (Stones & Morris 1972).

"Since then there has been an explosion in the use of these techniques in the U.S.A. and a very rapid developing interest in Great Britain" (Stones & Morris 1972: 79). The first application of the microteaching principle to the training of elementary school teachers was made by Kallenbach at the San Jose State College in California in 1965. Undergraduate education courses at the University of Stirling were planned from the outset to include periods of microteaching (Perrott 1967). The New University of Ulster used microteaching as an integral part of its teacher training programme (McAleese & Unwin 1971). By the late sixties it had spread to countries throughout the world - "Canada, England, Scotland, Ireland, Malaysia, the Philippines and Australia, to mention a few" (Turney et al 1973: viii), including Rhodesia, at the University College in Salisbury in 1968, and South Africa, at the University of Natal in 1971.

2.2 Uses of microteaching

Microteaching was first introduced at the Stanford summer schools as a means of introducing liberal arts students to education before they participated in initial teacher training. As indicated above, it quickly spread to teacher training establishments; in 1967 James Cooper of Stanford University reported that over 100 of the AACTE-affiliated teacher education institutions were using it and Flanders, in the introduction to Allen and Ryan's book, reports a similar survey by James A. Johnson of Northern Illinois University in 1968 suggesting that 53% of all teacher-education programmes, including 4% which reported 'extensive use', were using it (Allen & Ryan 1969). In 1964 Aubertine used microteaching not only to train undergraduates, but also as a means of creating a cadre of clinically trained supervising teachers. Allen also reports the use of microteaching in Teacher Corps programmes at Memphis State University as part of the screening devices that might indicate whether applicants were

suitable for training, in Peace Corps programmes in which training must be brief, intensive and effective and for micro-counselling (Allen & Ryan 1969).

From its earliest conception, microteaching was recognised for its research potential. "Microteaching was born of an experiment. From its very beginning, it has been used as a means of research....The researcher has great control over practice in microteaching" (Allen & Ryan 1969: 8).

Another early development was that of self instructional microteaching, in which the techniques of modelling and self evaluation were integrated into a controlled and economical training process. Courses of this type were first reported at the Far West Laboratory for Educational Research and Development by the Teacher Education Program. The in-service courses were called 'minicourses' to differentiate them from other instructional models that use microteaching. The minicourse model provides a self instructional package that can be used in any school where a videotape recording system is available. The minicourse has many of the advantages of a normal microteaching programme, involving immediate feedback, focus on specific skills and learning through practice, without the need for expensive tutor supervision. (Borg et al a,b 1970)

A similar project was initiated by the Centre for Educational Research and Innovation of the Organisation for Economic Cooperation and Development in Europe. This involved cooperation between research groups at universities in Holland, Sweden and West Germany with the Microteaching Research Unit at the University of Lancaster and with the Far West Laboratory (Perrott 1977); this concern with international transfer of self instructional microteaching materials led to a further project supported by the Leverhulme trust between Lancaster and two Indian Universities.

At Ulster Polytechnic, Hargie developed a Mini-Training approach in which, beginning with a basic skill and adding other skills, more complex and higher order skills are built up as time progresses. This became a Simulated Social Skills Training suitable for a variety of different professions, such as health visitors, careers officers, social workers, nurses, youth leaders, doctors, clergymen, armed forces, as well as for teachers and for use in micro-counselling (Hargie 1980).

Microteaching has also received attention as a means of improving teacher training courses in developing countries (Karmostaji 1980). Further examples can be found in the

schemes devised by Bulmershe College for introduction into Thailand and India (Trott & Strongman 1979).

A further situation for which the microteaching approach appears particularly suitable is in the Staff Development courses in tertiary institutions (Yule 1981). The use of video feedback of lectures or parts of lectures avoids much of the complexities that are found in the classroom teaching situation and attention can be paid to the limited number of teaching skills normally displayed in the lecture situation.

2.3 Trends in research of microteaching

From the very beginning, microteaching, in spite of its specific formulation as a miniaturised form of classroom teaching, was used more as a generic term for a whole variety of related experiences. Research has been carried out into many aspects of microteaching and reports and reviews of the findings are well documented in the literature (Brusling 1974; Hargie & Maidment 1979; McIntyre et al 1977; Turney et al 1973). Consistent with the analytic approach of microteaching and with the facility for control of the practice situation that is an inherent part of the approach, the research, particularly in the early stages, tends to have been concerned with the examination of the effects of different factors which together create the whole experience.

A variety of views have been expressed about the type and quality of the research conducted. With the implementation of microteaching in undergraduate courses at Stirling, funds were obtained for a five-year research project to evaluate the contribution which microteaching could make to preservice professional education of secondary school teachers. Yet even in this situation it was necessary to reject any attempt to reach a verdict about the overall value of microteaching and instead "relatively small scale investigations of various kinds were conducted" (McIntyre et al 1977: 13). The conflict between the needs of the researcher and the needs of the teacher trainer become apparent:

"There were some inevitable tensions between researchers and teaching staff: the interests of researchers were to explore the effects of different procedures as fully as possible, to ask questions of a relatively abstract and generalisable kind, to allocate students to different treatments on a random basis, and to attend to the results of their previous investigations in planning further

research and teaching programmes; on the other hand, the interests of the teaching staff were to limit the proportion of their time which they had to give to microteaching, to ask questions relating to their own immediate problems in a particular context, to prepare each and all of their students for teaching in the ways which seemed to them most appropriate for those student, and to plan their work on the basis of their impressions of previous courses. The project has accordingly been marked by a succession of (generally amicable) compromises between these two sets of interests."

(McIntyre et al 1977: 13)

The issue of the need to compromise is also pursued by George Brown as a necessary technique to ensure full cooperation from the various participating bodies in a microteaching programme:

"...hold informal meetings with tutors, principals (head teachers) and school staff to introduce them to the ideas, if possible, to show them some examples of videotaped lessons and to give them the opportunity of making suggestions about the possible programme. Principals often are understandably concerned about the benefit their pupils will derive from the experience and supervisors about the benefits for students. The key to success in these discussions lies in carefully thought-out compromises. It is worth gently pointing out at such meetings that one has to balance the needs of various curriculum areas, pressures upon staff and organizational problems vis-a-vis schools and the whole course. Compromise on some issues is essential if one is to develop an efficient and effective programme."

(Brown 1975c: 137)

If the teaching staff have to compromise and the researcher has to compromise with an already compromised situation, no wonder that Wragg comments:

"...the literature abounds with descriptions or evaluations of schemes which vary from the elaborate and rigorous monitoring of carefully devised experiments, to the off-the-cuff, sloppy or tendentious appraisals of the hare-brained and madcap.

I have tried to exclude some of the more ham-fisted experiments, which demonstrate little more than the fact that novices will, at the end of an

experimental programme, manifest more of almost any kind of behaviour when the cold steel of their tutor's gun is being held against their temple."

(Wragg 1982: 42)

Even so other authors call for more of the same kind of research. Turney points out the need for replication of previous studies

"...before teacher educators can justifiably hold the great confidence that many have in the effectiveness of the innovation and the teaching skills involved."

(Turney et al 1973: 26)

and supports the view expressed by Hargie that

"many questions remain unanswered, relating to the use of tutors, the length of microlessons, the types of observation schedule to be used in feedback tutorials, the skills to be practised, the number of pupils and the use of 'model' tapes."

(Hargie & Maidment 1979: 27)

adding his own list:

"the best type of models for particular skills and particular students; the most useful cueing and discriminatory devices; the optimum length of a model; the most appropriate place for modelling in the microteaching cycle; the number of times a model should be viewed to ensure maximum effectiveness; the advantages of the expert model over the 'coping', student models; the most appropriate degree of exaggeration (if at all) and the incidence of the skill in a model; the value of models of the skill being used in small group and whole class situations in assisting students in the transfer of the skill to ordinary classrooms; the employment of both positive and negative models of skills as opposed to positive instances only; the most effective role of the supervisor during modelling; and the best ways of linking the modelling, practice, and feedback phases."

(Turney et al 1973: 27)

In the light of these views it is difficult to reconcile Perlberg's argument that publications in the field of microteaching have decreased in recent years, especially in the American literature, because educational researchers have moved away from this concept and are now seeking other ways to 'shock the establishment' (Perlberg 1976), but as this matter relates to the trends in the nature of teacher training, any discussion can be usefully deferred to

section 2.5 of this chapter.

2.4 Surveys of microteaching

In spite of, or possibly because of, the generic nature of microteaching, a number of surveys have been made in many different situations to obtain information about what is happening with a view to recommending policies and predicting developments. Mention has already been made of the American surveys by Cooper in 1967 and Johnson in 1968. A more comprehensive survey was that undertaken in the USA in 1969 by Ward and submitted for a doctoral dissertation entitled 'A Survey of Microteaching in Secondary Education Programmes of all NCATE Accredited Colleges and Universities' (Ward 1970). She reported "that 141 (of 442) colleges and universities were using microteaching in some way, including, in 50 cases, in-service training" (McAleese & Unwin 1971: 11). Brief accounts of Ward's survey are found in many sources (Stones & Morris 1972; Turney et al 1973; Wragg 1974), a more comprehensive and critical account is found in Hargie & Maidment (1979), who express the opinion that the survey was conducted too early in the development of microteaching, as "one in four programmes had run for one year only and...the average lifetime of facilities at the time of survey being just two years" (Hargie & Maidment 1979: 32). The modifications of the Stanford model are apparent, even at this early stage, and reveal the limitations of the microteaching organisation:

1. Over half the institutions reported had only a single course using it.
2. Only one in four were using the reteach cycle.
3. 99% had less than the recommended number (20) of teaching encounters and two in three offered less than five encounters to students.
4. Only one in five used children at least 75% of the time, as against two in three who used peers for 75%.
5. Videotape was used by only 75% of those reported.
6. One in five used twice the recommended number of pupils in the microclass.

The Stanford model appeared to have a stronger influence in Australia, as is shown by the survey undertaken by Turney, yet only 10 out of 27 colleges always used reteach, 50% used microteaching during the teaching practice period, three in four used children as pupils, half the colleges used both campus and school locations and all used video recorders (Turney et al 1973). The strongest feature of Turney's survey is the data on modelling (Hargie & Maidment

1979). The numbers of student teachers and the logistics of operating a full microteaching programme were also apparent. One of the main problems encountered was an inadequate number of technical staff to maintain and set up the equipment. The use of children, often on the school location, and during teaching practice gives some indication of a very important variation in the Australian pattern.

A survey was conducted in West Germany in 1972 by Brunner and, again revealed local variations in the application of microteaching. Among the thirty institutions responding the majority appeared to be operating with a class of normal size as often as not (1:8 if peers only were used, 1:4 for peers and children, 1:1 if only children used), three in four respondents reported the use of increasingly complex training and on the whole the numbers of students involved were comparatively low, averaging about 45. (Hargie & Maidment 1979)

Falus conducted a survey in 1974 in the United Kingdom and although "the microclass was presented along the lines of the Stanford model by half the respondents...very few were found to satisfy all requirements of microteaching in its strict sense" (Hargie & Maidment 1979: 40) and modelling was poorly developed. Only one in five institutions claimed to be using microteaching in in-service education, as compared with 75% in the survey conducted in the following year by Hargie and Maidment.

Prior to their own survey, Hargie and Maidment comment on their overall impressions gained from the previous ones:

"Firstly, they all give the impression of an innovation soundly conceived but less soundly implemented. The shortfalls from the original microteaching models may correspond to shortcomings. Yet there were many examples of 'mature' programmes in operation and of supportive research projects aimed at improving effectiveness in operation.

Secondly, there was no indication of any falling away in the use of the technique, though the rate at which programmes were being set up was not examined in any study...

Thirdly, the studies do not provide evidence of nation-wide, let alone world-wide, acceptance and use of microteaching...despite the interest in developments shown by international organisations such as OECD (1974) and UNESCO (1975)...

The final impression, left till last since we think it the most significant, is that the surveys of microteaching tapped an eagerness to exploit the innovation and to communicate experience of it. What this tells us about the personnel responding to the enquiries is open to endless speculation. We offer just one conjecture: that far too long too many teachers, including their trainers, have regarded teaching as subjective experience, unsuitable for analysis because it is personal and complex. It is sometimes necessary to simplify experience, and we concluded that willingness to entertain doing this was shown by the proponents of microteaching."

(Hargie & Maidment 1979: 40-41)

The survey that Hargie and Maidment undertook consisted of three parts. Part I was designed to identify areas of microteaching among colleges and departments and any research going on, a target population of 220 was identified. Part II was designed for those operating microteaching programmes and Part III for those planning them, 40% of the target population completed Part II or III, i.e. 84 questionnaires were analysed for their responses. They chose not to define microteaching in any formal way in order to cast their net as widely as possible to identify the variety of approaches that were being adopted. Among the mass of data accumulated, attention is drawn at this stage to a few items which relate to those mentioned in previous surveys: 80% used peer groups, 63% used children (including 43% using both), size of classes varied with peer groups tending to be larger and larger classes tended to have longer lessons (around a mean of over 10 minutes), 47% appeared to use the teach/reteach cycle. In summarizing they comment:

"Microteaching facilities are widespread among teacher training establishments in the UK. The rate of their installation has probably reached a peak but further provision is to be expected. Operation of the facilities is diversified and small-scale, reaching as yet a small minority of student teachers in training."

(Hargie & Maidment 1979: 77)

The survey did reveal extensive difficulties with the development of the technique, very few practitioners did not acknowledge difficulties "and these failed to specify it more because of its magnitude than of its absence" (Hargie & Maidment 1979: 85). In spite of these concerns, however, and possibly because microteaching appeared to be offered to only about 10% of the

teacher training enrolments, they predicted an expansion of microteaching and an increase in the number of locations offering it. However, with the fall in teacher training places, they saw any increase, not in absolute terms, but in the proportion of students who would be involved in microteaching.

More recently Yule conducted surveys at a limited number of institutions in England and Scotland (8 universities and 4 colleges) and in teacher training institutions throughout South Africa (34 respondents). The United Kingdom survey was concerned with those institutions known to be using microteaching fairly extensively and, among the details reported, he mentions that 50% were using reteach, that most microlessons are 10 minutes or longer, that video recordings are not used in all cases (4 institutions used only audio) and the majority of institutions require students to teach either one or two microlessons. The majority of institutions used microteaching as part of the subject method course and comments are made about the apparent lack of microteaching facilities in certain subject areas, like home language as opposed to the sciences. (Yule 1981)

The South African survey showed that of the 19 institutions using microteaching, the majority (about two-thirds) used lessons of 10 minutes duration, used video recording and used the pattern of: lesson - playback - discussion - next lesson (only five used the reteach cycle) (Yule & Steyn 1982). The impression given by the results is that microteaching has been associated with a much greater commitment to sophisticated technical facilities than is apparent in the United Kingdom. It appears that the highly developed Stirling model of microteaching, following the Stanford model, has had a much greater effect in South Africa than it has in the United Kingdom.

The survey, carried out at the University of Leicester and funded by the DES, into the Structure and Process of Initial Teacher Education (SPITE) in universities in England and Wales also gave some attention to the use of microteaching. Under the heading of 'Observation of fellow students' teaching' microteaching was used as the example. Student responses indicated that 9,7% had used it 'On a regular basis' in their method course, 47,8% 'Occasionally' and 42,5% 'Not at all'. "It was the modern language students who were most likely to have such experiences on a regular basis, and the English students who were least likely to do it at all" (Patrick et al 1982: 106). Method staff reported that for 15,7% a lot of time was spent on microteaching and for 32,2% some time was spent; the corresponding responses to the use of

interaction analysis being 5% and 28,3%. It is also reported that 'microteaching' and 'interaction analysis' were among "The topics which tutors most commonly avoided because they were dealt with elsewhere on the PGCE" (Patrick et al 1982: 190). The author was informed that the evidence relating to microteaching was of questionable value because many students were not familiar with the term, so it is possible that more were exposed to it in a limited form than the survey reports (Patrick 1984).

2.5 Place of microteaching in teacher training

It would appear that the contribution that microteaching can make in a postgraduate teacher training course would be influenced by the underlying principles on which the course organisation is based. Microteaching developed in the sixties as a means of making a campus-based training course more relevant to the needs of students, of making theory relate to practice in the process of education. It is essentially a campus-based activity, in that small groups of pupils are taught, observed and recorded in a controlled environment and often in the presence of sophisticated recording equipment. Although the practical element cannot be disputed, it is open to criticism for the artificiality that is imposed by the very factors which are used to give it its main advantages viz. small classes, short periods of time, limited and specific goals. The microlessons are designed to create a series of structured experiences for the students and as a result the pupils, particularly if they are children, are used as more realistic aids to achieve these ends. From the stand point of the traditional college-based model with the heavily loaded education theory divorced from the practical experience in the classroom, microteaching can be seen as a technique which bridges the gap by bringing some of the practice into closer contact with the theory, physically, temporally and staffwise.

More specifically in the traditional approach to teacher training microteaching can be seen as a component of any course which concerns itself, in a theoretical way, about the practice of teaching in the classroom. The total organisation of the course, as it varies from one institution to another, will affect the way it is used. University departments in the United Kingdom, particularly the larger ones, have tended to operate as a number of subject method courses which come together for a regular input of theory. Hence, microteaching is more

likely to have a place in a subject method course. This approach has complications where a student has a number of method courses, as in a Primary course, because it would tend to lead to a repetition of the same technique in different circumstances. This situation has led to the organisation of microteaching as an extension of the work in Audio-visual, in which students are given 'practical laboratory' work and, indeed, many references are made to microteaching laboratories. In some cases, as in South African universities, a course like General Methods of Teaching or General Didactics, already existed and was able to assume the responsibility for the organisation of a microteaching programme. In other cases, special courses have been created to achieve the same ends, either as short introductory courses like the Introductory Three Weeks (IT) course at the University of the Witwatersrand (Gregory 1984), the T.L.C. campus-based teaching practice at Durban-Westville (Shepherd 1984), or as specially designed courses such as 'Teaching Skills' at Bulmershe College of Education (Strongman 1984), 'Teaching as an Activity' at Dunfermline College of Physical Education (Hill 1984), 'The Art of Teaching' at South Glamorgan Institute of Education (Scott 1984), 'Microteaching Programme' at Humberside College of Higher Education (Lowsley 1984) and 'The Organisation of Learning' at La Sainte Union College of Higher Education (Oakley 1984).

The development of school-based models of teacher training has introduced a different paradigm into PGCE courses. In a situation where students are introduced to real pupils in real learning environments as they exist in real schools, microteaching appears to have little to offer, unless the skills approach can be adapted to fit into the school classroom situation. There are those who see microteaching still having a function, even in a school-based model, by introducing students to teaching skills in a controlled environment which allows for direct feedback, self evaluation and a means of isolating particular lesson components for analysis purposes (Hirst 1980, Rogers 1984). It is possible that the adaptation of microteaching to the school classroom might have the greatest potential for the development of teacher training bearing in mind the views expressed by Bolster in his criticism of traditional research on teaching and the little influence it has had on practice (Bolster 1982). Bolster contrasts the differences in conceptualization of teaching between teachers, involved in the actual process of teaching, and researchers, who see teaching as a necessary achievement for learning to take place. The latter tend to adopt a nomothetic, reductionist approach, universalistic in character, based on unilateral causation, whereas a more effective research model could be

"idiographic in origin and therefore particularistic in character" (Bolster 1982: 298), based on a holistic conception which assumes a multiple causation of events and unanticipated consequences enabling teachers to "function consistently as situational decision makers" (Bolster 1982: 296). The classroom is "...a small culture created by teacher and student as they work together over a period of time" (Bolster 1982: 303) leading to the tacit consensus between teacher and student about mutual expectations i.e. instrumental acculturation. In calling for an ethnographic methodology based on sociolinguistics, anthropology and symbolic interactionism, Bolster acknowledges the limitations of such an approach a) conceptually, in that it assumes that knowledge of a situation is context specific and there is no demonstrable generalization, and b) pragmatically, since the researcher is totally immersed in the classroom situation for a long time, i.e. it is highly labour intensive. This argument could provide the necessary rational basis for the IT-INSET school-based approach and grounds for the rejection of the teaching skills and behaviour modification that is an inherent part of microteaching. Ruth Eagle, in adopting a group teaching experience (four students with a teacher) followed by discussion on a regular weekly basis with a class, is an example of the application of these principles and although it is "artificial, in that no qualified teacher could be working under those conditions... as a training situation for a short period it has great potential" (Eagle 1978: 21). Further support for this standpoint comes from the authors of the SPITE report, who call for a variety of research methods embracing those proposed by Bolster, and, "possibly above all, a more sophisticated theoretical orientation to the issues involved in teacher effectiveness and effective teacher education. Such an orientation might encompass a view that teacher effectiveness is context-specific, and would enable researchers to address themselves to questions relating to the subject content of what is being taught and to whom..." (Reid et al 1981: 148). Hence, educational researchers and teacher trainers appear to be converging on the same goal viz. the task of the teacher in the classroom, and are acknowledging the need to see the process of teaching from a more holistic view point.

Taylor in his examination of the crisis of confidence in teacher education summarizes the pressure on teacher education and stresses the need to accept that teacher education curricula are subject to a continuous process of evolutionary renewal. He comments that a 'core curriculum' is called for "which would presumably guarantee some kind of minimum competency" (Taylor 1983: 45) and certainly this appears to be one of the functions of the new Council for

the Accreditation of Teacher Education for England and Wales. When he adds, however, that "perhaps we should hold judgement on a 'core curriculum' until some specimens are available for evaluation" (Taylor 1983: 46), it would appear that such a curriculum must at the same time allow for the continuous process of evolutionary renewal, or, in other words, teacher education must be dynamic, not static, continually in a state of flux, looking for the right answers but always finding them too late.

It may well be that a combination of the Visual Self-Confrontation (VSC) and Interaction analysis techniques associated with microteaching through the use of video recording, together with the opportunity for participant observation and the accumulation of qualitative data of classroom situations, that is the essence of the ethnographic methodology of Bolster, will provide the future framework for teacher education courses – a core curriculum allowing for change and flexibility.

Microteaching has been introduced into teacher training at the same time as many of the other innovations in education generally, through the influence of educational technology. Hence, it illustrates a more systematic and scientific approach to the solution of teacher training problems by identifying specific objectives, using appropriate methods and media and evaluating to assess the effectiveness of the whole system. As a result microteaching has appeared in many different forms by combining the different contributing components in a variety of different ways to accommodate the many different situations in which it has been used. The present study aims to look at the variation in these contributing components in an attempt to identify the patterns of effective microteaching organisation to meet the differing circumstances and to identify those factors in the situation which have contributed to that pattern of microteaching.

CHAPTER 3

RESEARCH DESIGN

3.1 Acquisition of Data

In approaching a study of the use of microteaching and of the factors affecting its use, there are many facets to take into account. Since the early days of Stanford, microteaching has found uses in many different aspects of training other than teacher training. Teacher training courses follow many different patterns of organisation viz. initial or in-service, diploma or degree, post-graduate diploma. Hence this study was limited to the use of microteaching as a training technique in the post-graduate diploma course for student teachers. The main reason for limiting the study to this area was because the post-graduate teacher training diploma course lasts only one year, including a block of school teaching practice. Consequently, the time available on the university or college campus for the preparation of student teachers and for the consolidation of their background knowledge in education and in the teaching of their subjects at a school level is comparatively shorter than in other forms of initial training. Microteaching tends to be very time consuming as it involves a practical experience of teaching for individual students working in small groups needing a lot of staff supervision. If there are difficulties in implementing microteaching as a training technique, the post-graduate diploma course is likely to be the most critical and demanding. In addition, the author's immediate experience is in the area of post-graduate teacher training so that any feedback from the study is likely to be of maximum benefit to his own work and responsibility. However, the number of institutions in the Republic of South Africa offering a one year post-graduate teaching diploma is only sixteen, including the Black Homeland universities of Fort Hare, Transkei, University of the North and Zululand (see Appendix 1.5). Hence, it was decided to include the universities, polytechnics and colleges in the United Kingdom in the study. The decision to extend the study in this way not only increased the total population of institutions offering the post-graduate diploma course but also increased the number of

variables that could be examined. Since new ideas and the way they are implemented often arise in institutions overseas and eventually have an effect in South Africa, a comparative study of this type could have some predictive value for the way the HDE(PG) course might develop in this country during the eighties, bearing in mind particularly the radical changes to the PGCE in the United Kingdom during the seventies.

The study was particularly motivated by the author's own experience of operating a limited microteaching programme for some thirteen years at the University of Natal in Pietermaritzburg. As a practitioner in teacher education the author became aware of the difficulties and often impossibilities of implementing the findings of research in microteaching into his own programme. MacLeod and McIntyre comment on "the inappropriateness of some comparative studies of microteaching and the precipitous rush to pragmatic experimentation" (MacLeod & McIntyre 1977: 111).

Whereas a minority of research studies have tried to compare microteaching to conventional teacher training practices, the majority of research studies on microteaching have been concerned with "...finding the most effective combination of components to optimise students' use of the skills being practised" (MacLeod & McIntyre 1977: 111). Such research, although technically highly competent, has been unenlightening and has not been of immediate help to those concerned with the training of teachers.

"In the long run, it is far more economical research strategy to use looser and more exploratory designs in the hope that from their results we shall have the insight to be able to begin the development of theoretical ideas."

(MacLeod & McIntyre 1977: 112)

Since it appeared likely that the 'looser and more exploratory designs' were in fact being used and tested by the many practitioners involved in the preparation of student teachers for their teaching in schools, there was a need for information about how staff were using a microteaching approach and for some measure of their attitudes towards the use of microteaching in their particular course structure.

The initial tasks were concerned with the production of suitable questionnaires and with the planning of a strategy for using them to obtain feedback from the staff at institutions in the United Kingdom and in the Republic of South Africa.

Material for two distinct questionnaires, involving information about the organisation of

microteaching and attitudes towards the various aspects of microteaching was collected from the literature and from discussion with colleagues at the University of Natal as well as those involved in microteaching in adjacent institutions. The Organisation and Attitude Questionnaires were kept separate as their design and format were quite distinct. Two shorter questionnaires might be more acceptable to the population sampled than one very long one and the Attitude Questionnaire could also be used separately in situations where microteaching was not actually being used. The Attitude Questionnaire format followed a combination of a Thurstone-type scale with a Likert-type scale, in that, for each item, four opinions were identified for the subject to choose the most appropriate or the one nearest to their own opinion but within that choice the subject was able to indicate on a three point scale whether the opinion was just right, too strong or too weak. This technique seemed to combine the separate advantages of the two scales and to minimize disadvantages such as being forced to choose an item which the subject does not wholly agree with, and hence leaves blank, or having to rate an item which does not truly apply to the situation in which the subject finds himself. Hence attitudes towards aspects of microteaching could be measured on a twelve point scale or on a four point scale if statistical procedures required that the data be reduced to a more compact format. The Organisation Questionnaire was designed to allow for both quantitative data, which could be analysed statistically, and for qualitative data, which would enable the subjects to express themselves more freely.

As the larger population of post-graduate teacher training institutions was in the United Kingdom, it was decided that the pre-test of the material should be carried out on a sample from that population. A list of institutions offering PGCE courses in the United Kingdom, together with addresses, was found in the British Council handbook (British Council 1982).

3.2 Procedure adopted

A preliminary Information questionnaire (see Appendix 1.1b) was designed which was sent with an introductory letter (see Appendix 1.1a) to all universities, polytechnics and colleges in the United Kingdom offering one year post-graduate teacher training course as listed in the British Council handbook. The questionnaire was directed at the Course Coordinator of the Postgraduate Certificate of Education Course in the Department of Education of the particular institution. Information was requested about size of establishment, as indicated by numbers of

students and numbers of staff involved in the PGCE course, about the importance attached to microteaching, as indicated by the number of weeks devoted to microteaching and by an indication of which courses, within the PGCE, were most likely to have a microteaching component. Space was included for general comments about the contribution microteaching could make in the PGCE course, about its limitations, about the problems identified in its use, about its use in other diploma courses and some indication of whether the microteaching policy had expanded or otherwise in recent years. In particular, the names of those staff, who were directly concerned, or likely to be concerned, with the planning and operation of any form of microteaching in any of their courses for the PGCE, were requested so that they could be contacted at a later date with the more detailed questionnaires. The Information Questionnaires were despatched when the author arrived in the United Kingdom for a sabbatical leave of five months. The return address for the responses was at the Department of Educational Research at the University of Lancaster, where the author had an Honorary Senior Lectureship and office facilities for the duration of his leave.

Whilst awaiting the response to the Information Questionnaire, the more detailed Organisation and Attitude Questionnaires were drafted. The items for the Attitude Questionnaire had been formulated, then vetted and grouped by a number of judges identified from those education staff who were known to the author to be involved in microteaching programmes in South Africa. Additional feedback had also been received concerning the suitability of the format of the questionnaires and further feedback was obtained in the United Kingdom from, for example, visits to local experts in microteaching. Similarly the draft Organisation Questionnaire was scrutinised and additions and modifications made in the light of possible microteaching practices in the United Kingdom.

A sample population for pre-testing the draft Organisation and Attitude Questionnaires was obtained by locating on a map the sites of the universities, polytechnics and colleges (see Appendix 1.6) to which the Information Questionnaires had been despatched. The map was then divided into five distinct areas, the boundaries of which were chosen so that each area contained, as near as possible, the same ratio of universities, polytechnics and colleges offering the PGCE course as in the whole country, according to the British Council handbook. From these five areas one was chosen at random and, as responses were received from the Information Questionnaire, ten staff members from the range of institutions were chosen from

the early replies. Copies of the draft Organisation and Attitude Questionnaires were sent with a covering letter to request their cooperation and to explain that additional feedback was required about the design, content and clarity of the instruments, so that they could be modified for distribution to the main population of staff involved in PGCE courses. Certain ambiguities and items likely to be misleading were identified, the instructions for the Attitude Questionnaires were reformulated and a final format for the two questionnaires was decided upon (see Appendix 1.2).

The responses to the Information Questionnaire indicated that the original list of institutions was not sufficiently accurate for the purpose of the study. In the case of Scottish Universities, PGCE courses were only offered at the associated colleges. Some addresses had changed with the reorganisation of polytechnics and colleges and telephone calls identified institutions and PGCE course directors who had not received the initial communication. Some institutions, that had received them, were no longer offering the PGCE course as a result of the Government's cutbacks in education. The Graduate Teacher Training Register (GTTR 1984) was obtained with the most recent information about addresses, student numbers and optional courses. Even this was not complete as it only applied to England and Wales and did not include those institutions, some of which had already responded, offering Art & Design PGCE courses. Further registers of institutions offering PGCE courses were obtained from the General Teaching Council for Scotland, the Department of Education for Northern Ireland and the Clearing House for Postgraduate Courses in Art Education.

It soon became evident that, in many of the large Departments of Education in universities and polytechnics, there was no one person who was fully aware of how microteaching was being used in the component courses. In some cases duplicates had been made of the Information Questionnaire and more than one completed version was returned. In other cases all staff had been circularized by the course director who returned either a summary of the overall position as it appeared, or the copies of the individual statements as received from tutors. Sometimes there was a delay in responding because departmental meetings had been called to look into the microteaching policy. Often, if there was no completed questionnaire, letters of explanation were received indicating that no use was made of microteaching or the PGCE was no longer offered. In some cases, responses included short concise descriptions of the use made of microteaching. It appeared that the best strategy for obtaining information was, after

contacting the PGCE Course Director, to contact the subject method specialists or professional course tutors. This meant a much greater circulation of questionnaires than was originally intended but also meant that a much greater variety of responses were likely to be received from any one institution.

The final versions of the Organisation and Attitude Questionnaires were posted or taken to the various institutions. The staff whose names were listed in the preliminary feedback were contacted. In some cases visits to the institutions revealed further information of possible microteaching components, in which case additional questionnaires were left. Visits were arranged to a wide variety of institutions. Some of these visits were by invitation, others to follow up correspondence and others to make an initial contact in order to find out why no response had been received. As a result the nature of the visits varied considerably from one institution to the next and included sitting in on microteaching sessions, being shown the physical facilities, meeting tutors informally as well as establishing contact for the purpose of obtaining as full a response as possible to the questionnaires.

3.3 Responses to the Information Questionnaire

In response to the initial circulation of the Information questionnaire fifty-four completed responses were analysed. In addition letters were also received in lieu of completed questionnaires. As the responses from the United Kingdom institutions were being received at the time that the main preparation for the more detailed survey was being undertaken, the feedback received helped to confirm some of the detailed design strategy and the content of the items.

A variety of responses were received to the request for information about the value of microteaching within the PGCE course (see Appendix 2.1). The one area of comment that received most attention (15 references distributed equally among United Kingdom universities, polytechnics and colleges) was concerned with the emphasis in microteaching of the 'skills' approach. The next factor in order of priority (10 references) was the emphasis on the 'practical' nature of the microteaching experience, particularly from the colleges. The 'introductory' nature or 'preparatory' relationship to teaching practice in schools (8 references) and the self-awareness or self-evaluation aspect of microteaching (8 references) were noted mainly by the universities. The 'analytic' approach (6 references) and the value of

'feedback' (6 references) were also specified. Universities mentioned its 'diagnostic' value (4 references) and its use 'after teaching practice' apparently for remedial purposes. Also mentioned were the safe 'environment' (3 references), effect on the 'confidence' of students (2 references) and its value as a 'group experience' (4 references) where students can learn from each other. Some drew attention to the fact that they were restricted to the use of peer groups only (4 references). On the whole comments were very positive, in some cases (3 references) mention was made of the value that students attached to microteaching.

The responses to the request for the limitations of microteaching and the problems encountered are best dealt with together as different people responded to these in different ways and often confused the two aspects (see Appendix 2.2). The 'unreal' nature or 'artificiality' of microteaching was given most attention (16 references) with the addition of other comments on 'use of peers' (2 references) and 'brevity' (2 references). The 'time consuming' nature was also emphasised (13 references), as was the need for 'resources' (14 references), need for 'technical support' (5 references) and the problems of 'setting-up' (3 references). The problems of equipment also received attention, with some mention of the difficulty to 'hear pupils' (1 reference) and in the use of the 'camera' (4 references) – one comment mentioned the adverse effect on pupils, another of its 'deceptiveness' in recording only certain or selective aspects of the microlesson and a third commented that it 'revealed all'. Only 4 references were made to the 'anxiety' or 'tension' caused to students and 3 references were made to the smallness of the group as a disadvantage as preparation for the real teaching experience. The limitations of a college-based approach (4 references) as opposed to a school-based experience were pointed out. Some saw the brevity and hence the concentration on specific skills as deleterious to the viewing of the lesson as a whole, particularly as some skills took time to warm up (5 references). Two references were made to the repetitiveness and the boredom sustained in a long microteaching programme. Only two responses indicated that they had experienced no problems but qualified this by their present lack of experience.

Questions 4 and 5 were included in the Information Questionnaire on the grounds that where expensive equipment was seen as a prerequisite then it is easier to motivate for it if either other courses were making use of a similar technique or the equipment was being used in other ways in the same course. Responses indicated that in many cases (16 references) colleges

and polytechnics shared the microteaching facilities largely with B.Ed. courses and in some cases diploma courses in Further Education, Nursing and Management, whereas universities identified concurrent degree/diploma, M.Ed., special education, medical and staff development courses in their six responses. Similarly responses to question 5 indicated that television was used in a variety of ways other than for microteaching viz. recording students teaching in school classrooms, television productions and projects in various subjects such as science, drama, English and, geography, interviewing techniques and students being given experience with television as an audio-visual aid. It is used for recording lessons as models or video exemplars for use in education and method courses or for introducing microteaching skills, as well as the recording and playback of off-air programmes.

Although other uses of the technical resources may be seen as advantageous to a microteaching programme in that it is likely to warrant a greater variety of more sophisticated equipment together with more reliable and more specialised technical assistance, it can also be a disadvantage since other demands on potentially limited equipment would mean that it was less accessible to any one course and consequently is likely to make the logistics of operating a microteaching programme even more demanding. In some cases respondents interpreted question 5 as requiring uses of television for microteaching purposes and as a result they specified the approaches of Professor George Brown of Nottingham University or Professor Elizabeth Perrott of Lancaster University as devising appropriate models of microteaching programmes for use in PGCE courses (Brown 1975c; Perrott 1982).

In response to question 6 asking for any changes in the way that microteaching has been used (see Appendix 2.3), one polytechnic indicated that in their case microteaching was 'initially used as a general introduction to issues related to teaching but has increasingly been structured to focus on specific classroom skills' whereas a college reported the 'changing emphasis from a skills oriented approach to the evaluation of processes' in teaching. Another college indicated 'A much wider use as staff realize its potential.' but also commented that 'Economics prevent expansion of space and technical resources.', on the other hand a polytechnic reported 'Those who value it use it, those who don't don't.' In the case of one university, which had developed a Teaching Method and Educational Technology Unit, 'Facilities expanded. Growth through university.' was reported, whereas another summed up the situation as 'Some colleagues having experimented feel that the time and effort involved are not justified

in the light of apparent advantage.' Another commented 'Initially a sceptic - I now devote a little more time.' In an attempt to integrate microteaching with a more school-based approach one university reported they 'Would like to develop it into the classroom to provide actual feedback,' but then added the comment that the time in the PGCE was 'severely constrained'. So many of the comments drew attention to the inherent conflicts in the organisation of microteaching in a teacher training programme, as was exemplified by another university that said 'Students though finding the experience a little disturbing at times concede its value and usefulness as part of training.'

The preliminary investigation had already revealed a wide range of opinions and practices and provided confirmation that a closer and more detailed study involving those staff members who were directly responsible for microteaching would be a worthwhile activity.

3.4 Design of research instrument

The research instrument used consisted of two questionnaires with distinct formats. The Attitude to Microteaching Questionnaire (see Appendix 1.2c) consisted of thirty-four items grouped under the following headings:

- 1.1 - 1.3 Physical and technical facilities.
- 2.1 - 2.5 Preparation for microteaching.
- 3.1 - 3.4 Supervision of microteaching.
- 4.1 - 4.3 'Reteach' lessons.
- 5.1 - 5.3 Immediate objectives.
- 6.1 - 6.4 Effects of microteaching on students.
- 7.1 - 7.4 Philosophical factors.
- 8.1 - 8.3 Relation of microteaching to other courses.
- 9.1 - 9.5 Economic factors.

Each item consisted of four statements or opinions from which the staff member was asked to choose the one that reflected their own point of view about the issue in question. The statement chosen could then be graded on a three point scale by selecting the middle number (2, 5, 8 or 11) if it accurately described their point of view, the lower number (1, 4, 7 or 10) if their opinion was closer to the previous statement or more extreme than the first, and the

higher number (3, 6, 9 or 12) if it was closer to the statement following or more extreme than the last statement. The staff member was required to mark only one of the twelve possible options in each case.

The Organisation of Microteaching Questionnaire (see Appendix 1.2b) consisted of thirty-five items (including the name of the staff member and the institution). The responses were in the form of information to specific questions to be supplied in the space provided or by marking their choice when alternatives were provided. The information asked for was to relate only to the group of postgraduate student teachers for whom they were responsible in their particular course. If more than one response was possible, where alternatives were given, the staff member was asked to indicate this by marking all the possible choices. Space was left for comments after particular items and at the end, to indicate any cutbacks or developments in the use of microteaching in recent years. The initial items 3 - 9 were concerned with general matters of course organisation, preparation and timetabling etc., items 10 - 24 were directed at the specific aspects of the microteaching programme such as size and type of microclass group, duration of microlesson, type of preparation for students, supervision, feedback, use of reteach, number of microlessons and skills used etc. Items 25 - 27 were concerned with the physical and technical facilities used, items 28 - 31 with the relation of the microteaching programme to school teaching practices and the type of assessment, if any, used, items 32 - 34 with the maintenance of recording equipment, if used, and item 35 asked how long they had been operating microteaching programmes.

The accompanying letter (see Appendix 1.2a) explained the nature of the study and included a definition of microteaching which was as broad as considered feasible to include as many as possible of the practices anticipated. Any deviations from this definition were also requested.

3.5 Rationale of the research design

The intention of the author was to collect as much information as possible about the way microteaching was organised and about the attitudes to aspects of microteaching, bearing in mind the limitations of the questionnaire approach, and to collect it in such a way that the data could be analysed statistically for comparisons to be made between what was happening, as

shown by the Organisation Questionnaire, and what should be happening, as implied by the Attitude Questionnaire. At the same time, allowance was made for more qualitative data i.e. responses and comments unique to the individual member of staff and to the institution.

The nature of the items in the Attitude Questionnaire allowed for some cross-referencing as a means of confirming the reliability of the responses. Items 1.1 and 1.2 refer to a need for particular physical and technical facilities from the point of view of the practitioner working under satisfactory conditions, whereas item 9.2 refers to physical and technical facilities as a capital expense tending to provide some constraints on the way that microteaching might be used; in the same way, items 1.3 and 9.3 refer to the need for technical assistance (see section 5.9 in Chapter 5). Item 5.1, concerned with immediate objectives of a microteaching programme, can be related to items 7.1 – 7.4 in which each specific objective is looked at in greater detail in order to relate it to the philosophical rationale about the significance of a particular microteaching approach. Item 5.3, with its emphasis on the identification, practice and assessment of specific teaching skills, can be related to item 7.3, where the philosophical implications of a skills approach explored in relation to the internalisation of skills and the transfer into the 'real' school classroom situation (see section 5.7 in Chapter 5).

The research study had been designed to make use of both qualitative and quantitative information concerning the way the staff of a postgraduate teaching training course were using some form of microteaching. Comparisons could then be made between the findings of the practitioners of teacher training and those who had been carrying out research into the various aspects of microteaching, as reported in the literature.

In the design of any questionnaire it is inevitable that the wording or the content of the items conflicts with some individual interpretations and these are shown by either failure to respond or by written comments among the responses. The comments received on the Attitude Questionnaires are recorded in Appendix 2.5.

It was anticipated that the open ended nature of the research design would lead to a more fruitful study of the use of microteaching in postgraduate teacher training than either a straight forward hypothesis testing experiment, a descriptive survey report or a comparative study between two countries; all of which appear to be elements of the basic design. The questions the author was asking as he initiated the study were:

'What are the patterns in the variety of approaches to microteaching?'

'What are the factors which affect the way microteaching is used?'

'What are the differences between the professionally oriented approach used in the United Kingdom since the James report in the early seventies and the traditional approach emphasising educational disciplines which is operational in South Africa?'

It is inevitable that a detailed study of this form leads to other and possibly more useful questions. Where strict hypotheses can be stated and where the data is in a form which satisfies the statistical criteria, these will be included within the results and findings of the study as recorded in Chapter 5.

3.6 Qualitative and quantitative analysis of data

The quantitative data was processed using the University of Natal's Sperry Univac 1100 mainframe computer. The responses to the Organisation and Attitude Questionnaires were coded (see Appendix 1.3) and punched on to computer cards so that they could be stored in a computer file for easy access. The file data was processed and analysed using Genstat and SPSS statistical packages.

The Attitude Questionnaire responses were more easily suited to the handling of statistical procedures than the responses to the Organisation Questionnaire, in that the format restricted or compartmentalized the possible alternatives more rigidly. Although the data from both questionnaires was such that it could be tabulated and cross-tabulated using Frequency and Crosstabs SPSS programs, Factor analysis, Anova and Cluster analysis techniques were also appropriate techniques for examining the Attitude questionnaire data.

Factor analysis is a statistical technique which has its principal usefulness at the border line of science i.e. "...where fundamental concepts are still lacking and crucial experiments cannot be found....The factor analyst is suspicious of choosing the important variables a priori no matter how self evident their significance may seem to the experimenter..." (Cattell 1973: 15). "It is necessary first to find out what relatively independent functional units are operative in the situation..." (Cattell 1973: 16). "Factor analysis is a holistic method in that it aims to discover and deal with the more massive

functional and organic wholes instead of losing research perspective in a mass of atomistically conceived variables." (Cattell 1973: 18). On the grounds that this study was:

- a) using naturalistic observation rather than experimental control,
- b) establishing a collection of variables by their empirical connections and not arbitrarily chosen,
- c) tending to produce hypotheses rather than strictly requiring them,
- d) leaving any causal relationship unassumed and not requiring any prior assumptions about dependent and independent variables;

factor analysis seemed an appropriate technique by which the data from the Attitude Questionnaire could be examined. Factor analysis of the total United Kingdom responses to the Attitude Questionnaire was carried out and then the process repeated restricting the program to four factors and using the Varimax orthogonal rotation to refine the factors identified to a relatively small number of items with high loadings on the factor. (Kim & Mueller 1978a,b). The four factors were identified from a possible eleven factors with eigenvalues greater than one by applying Cattell's Scree-test which distinguishes, in this case, the four main factors from the seven minor factors. (Kim & Mueller 1978b). Since, according to Harman's procedure for approximating the standard error of the factor loadings, loadings greater than ,29 are significant at the ,05 level, only those loadings are reported in Table 3.1, with the decimal points omitted for convenience (Cooley & Lohnes 1962).

Items 2.1, 2.2, 2.5, 3.1 and 3.4 were not a significant part of any of the factors identified. There appeared to be two dominant factors, which included 22 out of the possible 34 items. Factor 1, on inspection, includes items 6.1 to 6.4, 7.1 to 7.4 and 8.1 to 8.3 with the addition of 5.3, 9.1 and 9.5. As the most important factor it could be described as consistent with those items with broad implications such as the philosophical underpinning of microteaching, the relationship with other courses and the effects on students.

Table 3.1
Factor loadings of United Kingdom responses to Attitude items

	Factor-1	Factor-2	Factor-3	Factor-4
Eigenvalue	4,65	3,26	1,44	1,08
Percentage of variance	44,5	31,3	13,8	10,4
Item				
X11			64	
X12			53	
X13			72	
X21				
X22				
X23		37		30
X24		40		30
X25				
X31				
X32				34
X33		52		
X34				
X41		77		
X42		80		
X43		65		
X51		30		
X52		30		
X53	49	28		30
X61	52			
X62	45			
X63	49			
X64	38			
X71	42			
X72	51			
X73	62	32		
X74	49	31		
X81	53			40
X82	36			30
X83	40			
X91	42			-40
X92			-70	
X93			-30	
X94				-43
X95	43			

Factor 2 includes items 4.1 to 4.3 on the use of reteach lessons, with 2.3, 2.4 on the extent and type of preparation required, 5.1, 5.2 on immediate objectives and 7.3, 7.4 on the skills and behaviour modification approaches. The latter show some overlap with Factor 1. Factor 2 could be described as 'more concerned with the immediate practical issues of organising a microteaching programme'.

The other factors appear to be far less significant. Factor 3 is interesting because it appears to polarize the need for physical and technical facilities in items 1.1 to 1.3 against the economic items 9.2, 9.3 and might be described as a 'desirability for expensive facilities

and equipment'. Factor 4 contains a collection of items of which six are found in the other factors and which show rather low factor loadings. Because of the polarization between preparation and economic items, this factor might be described as 'the need for time consuming preparation and relating it to other courses'.

Factor analysis appears to confirm the groupings of items in the Attitude Questionnaire since all the items in Groups 1,4,6,7 and 8 appear together in the same factor and Group 5 items all have reasonable loadings in Factor 2 - item 5.3 has a loading of ,28 in Factor 2.

SPSS Factor programs were also operated on the United Kingdom university, polytechnic and college results and on the South African university results, separately, as well as on five different subject group areas viz. Science, Social Studies, Language, Education and Miscellaneous, including Art and Design, Physical Education, Mathematics etc. (see Appendix 3.2).

Cluster analysis is a statistical technique, similar to factor analysis, which is used to identify homogeneous groups by distinguishing comparable units and separating them from differing units. The ideal cluster is one which consists of individuals with great similarity between each other and little similarity with those outside the cluster, i.e. mutually exclusive classes of members with similar characteristics (Bijnen 1973). Where data is gathered in a haphazard fashion cluster analysis can be used to determine whether there is an implicit structure. Unfortunately, even more so than factor analysis, there are a variety of different clustering techniques which give very different results, so it is left to the researcher to decide on which clustering is the most relevant and, hence, which technique is the most suitable (Everitt 1980). The Genstat statistical package recommends a hierarchical method of clustering using a single linkage option. This method was tried on the total Attitude Questionnaire data and on the nine groups of 3, 4 or 5 individual items. Because of the wide spread of responses tending to use the full twelve point scale on each item, there were a considerable number of outliers, i.e. individual unique responses, and a comparatively small number of patterns of responses which attracted large numbers of respondents. In order to help identify the outliers, the data was examined using the SPSS Frequency program to count the number of respondents showing the range of combinations of responses for each of the nine groups when the responses for each item were reduced from a twelve to a four point scale. The evidence from this approach showed a large number of outliers and the tendency for a single

comparatively large cluster, which could be identified and described by reference to the items in the questionnaire. This technique of visual inspection was considered sufficiently valid in itself as a means of identifying clusters for the Attitude Questionnaire. The technique confirmed, at the most, a single cluster in each group, but, where groups consisted of five items, i.e. 2 and 9, and the number of possible combination of responses is 1024, even this was not possible. As a result it was not considered feasible to look for clusters among the full thirty-four items. The nature of the particular clusters identified are described in the discussion on the Groups following the analysis of the individual items in Chapter 4.

Crosstabulations of the results from items on both the Attitude and Organisation Questionnaires were examined for significant differences using the SPSS Crosstabs program with Statistic 1, Chi-square. For this purpose it was not only necessary to reduce the Attitude Questionnaire items to a four point scale but it was also necessary to recode the Organisation Questionnaire items to combine the possible alternatives in order to reduce the number of cells with fewer than five members. Significant crosstabulations are found in Appendix 3.1.

The discussion on each particular result is found in Chapter 5 where the items are discussed in great detail, relating the findings to the results from the Organisation Questionnaire and to the results of the many research studies reported in the literature.

CHAPTER 4

RESULTS FROM THE ORGANISATION QUESTIONNAIRE

The responses to the items from the Organisation Questionnaire (see Appendix 1.2b) were coded in order to retain as much of the data as possible and to allow for more than one alternative to be included. This policy led to a large number of different possible responses to any one item and for statistical purposes it was necessary to recode the data in order to reduce the number of possible categories. The computer coding and recoding for the Organisation Questionnaire can be found in Appendix 1.3. The data was punched on to the second computer data card, which, together with the data for the Attitude Questionnaire on the first card, can be found in the computer print-out in Appendix 1.4.

The results from the Organisation Questionnaire were crosstabulated against the Type of Institution (UPC) in their initial form and in their recoded form to identify any significant differences using SPSS Statistic 1, i.e. Chi-square. The level of significance of the difference in responses from the different types of institution is recorded, an asterisk (*) is used to indicate those levels of significance which must be interpreted with greater caution as they are based on more than 20% of cell frequencies of less than 5.

Computer codes for the data are shown in parentheses after the descriptive label for each item.

The discussion on each item contains a Table giving details in each case of the total United Kingdom and South African responses recorded for the different categories identified and their percentages in parentheses. Reference is also made in the discussion of each item to the results of the crosstabulation against the types of institution, as coded under UPC.

4.1 Type of institution. (UPC)

Each respondent was coded according to the type of institution viz. United Kingdom universities (UPC 01-30), United Kingdom polytechnics (UPC 33-45), United Kingdom colleges (UPC 50-72) and South African universities (UPC 80-99) and given an Identifying number (ID). This

information was punched on to the second data card with the results from the Attitude Questionnaire.

Table 4.1

Number of responses from different types of institution

	Univ	Poly	Coll	Total
United Kingdom	94	26	47	167
South Africa	51	-	-	51

4.2 Subject area. (SUBJ, SUBJGP)

From the responses to items 9 and 11 it was possible to identify the specific group of students that were being organised for microteaching, whether as a Subject Method group, a Special Education group or the total course intake. The specific groups were coded and labelled SUBJ. Thirty-three sub-groups were allowed for and these were grouped and recoded, as SUBJGP, in six main areas: Science, Social Studies, Language, Education, Arts and Mathematics. These were reduced to five groups in order to achieve similar number of responses by combining the last two as Miscellaneous.

Table 4.2

Number (percentage) of responses in different subject groups

	- United Kingdom -			Tot	South Africa	Tot
	Univ	Poly	Coll	UK%	Univ	RSA%
<u>SCIENCE</u>	28	6	6	(31%)	5	(11%)
Biology	7 +1		1 +1		1	
Chemistry	8 +1		1 +1			
Physics	8 +2					
Science	2	3	4 +1		2	
Physical Sc.	2				2	
Technology	1					
Home Econ.		3				
<u>SOC STUDIES</u>	18	1	5	(19%)	3	(7%)
Geography	8 +2	1	1			
History	9 +2	+1			2	
Accounting					1	
Rel. Educ.	1 +1					
Soc. Studies	+1	+1	1			
Economics		+1	2			
Commerce			1			
<u>LANGUAGES</u>	14	2	6	(17%)	14	(31%)
English	4 +2	+2	1		4	
Modern Lang.	9 +3	1 +2	5		4	
Classics	+1					
TESL	1	1			1	
Afrikaans					3	
African Lang.					2 +2	
<u>EDUCATION</u>	3	5	8	(13%)	20	(44%)
Guidance					1	
Primary	1 +2	2	3 +4			
Middle	1 +1	+1	2			
Further Educ.	1					
Secondary Educ		3 +2	2		18 +1	
Slow Learners			1			
Educ/AV			+1		1	
<u>MISCELLANEOUS</u>	14	4	8	(20%)	3	(7%)
Art/Design	1 +1	2 +2	1			
Music		1	1 +1			
Physical Educ.	3 +1		2 +1			
Mathematics	10 +2	1	4 +1		3	
No subject	1 +7	+2	7 +3	8	2	2

The additional numbers indicated by + are used to show where there were no detailed responses about the organisation of microteaching and the percentages refer only to the detailed responses to the Organisation questionnaire.

The subject groupings (SUBJGP) in their final recoded form were significantly different (at the ,0000 level) for the different institutions. United Kingdom universities showed a comparatively large number (33,3%) of Science staff and a small number (6,9%) of Education

staff among the respondents, whereas United Kingdom colleges and South African universities showed a higher proportion (32,6% and 44% respectively) of Education staff. The Language group for South African universities was also comparatively large (31%) with very few responses from Science (11%), Social Studies (7%), Mathematics (7%) and none from Arts (i.e. Fine Arts, Music and Physical Education). The United Kingdom polytechnics appeared to be the most representative of the total group in the way the respondents could be classified according to their SUBJGP.

4.3 Number of students organised. (A4)

The number of students organised for microteaching by any one respondent varied from 4 to 450. Numbers of 100 or more were coded for computer purposes as 99 and included three from United Kingdom universities, three from colleges and fourteen from South African universities. The data was recoded into categories of 1-10, 11-15, 16-20 and 21-99 and in this form shown to be significantly different (at the ,0001 level).

Table 4.3

Number (percentage) of students organised for microteaching

	<u>1 to 10</u>	<u>11 to 15</u>	<u>16 to 20</u>	<u>21 to 99</u>
United Kingdom	38 (28)	38 (28)	23 (17)	37 (27)
South Africa	12 (28)	3 (7)	1 (2)	27 (63)

Missing values = 28

Polytechnics and South African universities were comparatively low in the 11-15 group (4,8% and 7,0% respectively) and, in addition, South African universities were low (2,3%) in the 16-20 group and very high (62,8%) in the more than 20 group. It appears that microteaching is more likely to be organised in comparatively small subject method groups in the United Kingdom and in very large total course intake groups in South Africa.

4.4 Number of academic staff. (A5A)

Numbers varied from 1 to 23 and those of 10 or more were coded as 9, consisting of two United Kingdom universities, one college and nine South African universities. When recoded, in

the categories 1, 2 and More than 2, the difference between the types of institutions was highly significant (at the ,0000 level).

Table 4.4

Number (percentage) of academic staff

	<u>1 only</u>	<u>2 only</u>	<u>More than 2</u>
United Kingdom	80 (58)	35 (26)	22 (16)
South Africa	20 (43)	7 (14)	20 (43)

Missing values = 23

Of the United Kingdom universities 74,7% operated as a single staff member and only 9,3% in groups of more than two. Colleges tended (41,5%) to operate as two staff members, whereas South African universities operated with a single member of staff (43%) or in groups of more than two (43%). Polytechnics were the most representative of the total group sampled.

4.5 Number of technical staff. (A5B)

Responses to this item varied from 0 to 9 technical staff involved in microteaching with 4 and 9 being indicated by each of four South African universities. The most typical responses were none or one (43,1% and 40,3% respectively). When recoded to restrict the categories to 'None' or 'One or more', there was no significant difference (at the ,9855 level).

Table 4.5

Number (percentage) of technical staff

	<u>None</u>	<u>1 or more</u>
United Kingdom	61 (45)	76 (55)
South Africa	17 (41)	24 (59)

Missing values = 29

4.6 Compulsory microteaching. (A6)

An analysis of the responses to this item showed that the majority of staff made microteaching a compulsory component.

Table 4.6Number (percentage) with compulsory microteaching

	No	Yes
United Kingdom	14 (10)	124 (90)
South Africa	6 (13)	41 (87)

Missing values = 22

The 'Yes' responses varied from 87% in all universities to 90,5% in polytechnics and 95,1% in colleges. The differences were not significant (at the ,5332* level).

4.7 Lecture time for microteaching. (A7A)

Responses showed that lecture time devoted to microteaching varied from 0 to 80 hours, with the mode at 1 hour (35,3%). When the responses were recoded in categories of 0, 1, 2, 3 and 4 or more hours there was no significant difference between the institutions (at the ,3349* level).

Table 4.7Number (percentage) with different lecture hours

	None	1 hour	2 hours	3 hours	4 or more
United Kingdom	8 (10)	31 (38)	10 (12)	10 (12)	22 (28)
South Africa	6 (17)	10 (28)	6 (17)	2 (6)	12 (32)

Missing values = 90

Colleges and South African universities tended to use more time and United Kingdom universities were more inclined (51,3%) to use only one hour.

4.8 Practical time for microteaching. (A7B)

Responses showed that the practical time for microteaching varied from 0 to 80 hours with modes at 3 and 6 hours. When the data was recoded in categories '0 to 3', '4 to 7' and 'More than 7' hours there was a significant difference (at the ,0030 level).

Table 4.8Number (percentage) with different practical hours

	<u>0 to 3 hrs</u>	<u>4 to 7</u>	<u>More than 7</u>
United Kingdom	38 (33)	37 (32)	41 (35)
South Africa	9 (23)	20 (51)	10 (26)

Missing values = 52

South African universities tended (51%) to use 4-7 hours and polytechnics and colleges were more inclined to use more than 7 hours (64,7% and 45,9% respectively).

4.9 Length of microteaching session. (A8)

The way this item was formulated assumed that a group of students would meet together for a period of time during which several students would present their microlessons. The responses suggested that this was not necessarily the case, sometimes a session was as long as a microlesson. The length of a session was found to vary from less than 1 hour to 7 hours, with the most popular times being 'up to 1 hour' (29,0%), '1 to 2 hours' (45,5%) and '2 to 3 hours' (22,1%). When the times were recoded into three categories, grouping 'More than 2 hours' together, there was no significant difference in the responses from the different institutions.

Table 4.9Number (percentage) with different session lengths

	<u>Up to 1 hr</u>	<u>2 hours</u>	<u>More than 2</u>
United Kingdom	28 (27)	44 (42)	32 (31)
South Africa	15 (36)	22 (52)	5 (12)

Missing values = 61

Fewer (12,2%) South African universities used more than 2 hours. The long sessions indicated by the United Kingdom universities were probably due to the common practice of timetabling a subject method for a whole or half a day and that sometimes this time was used for microteaching.

4.10 Staff hours of preparation. (A9A)

The responses varied from 0 to 140 hours with those of 100 hours and over being coded as 99, the most common choices being 1 hour (21,4%), 2 hours (21,4%) and 3 hours (15,4%). These results suggest that staff might not have worked out their preparation time in the same way and that in some cases the responses were for one week only. Hence, the results must be interpreted with some caution. However, when the responses were recoded into three categories 'Up to 1 hour', '1-2 hours' and 'More than 2 hours', the difference between the responses from different types of institution appeared to be significant (at the ,0253 level).

Table 4.10

Number (percentage) with staff preparation hours

	<u>Up to 1hr</u>	<u>1 - 2 hrs</u>	<u>More than 2</u>
United Kingdom	25 (30)	16 (19)	42 (51)
South Africa	7 (20)	9 (26)	19 (54)

Missing values = 89

United Kingdom universities tended (43,2%) towards 'Up to 1 hour', whereas all other institutions tended towards over 2 hours of preparation.

4.11 Staff hours of student contact. (A9B)

The responses varied from 0 to 140 hours with those of 100 hours and over coded as 99, the most common responses being 6 hours (16,1%), 3 hours (10,5%), 2 and 10 hours (7,7% each).

Table 4.11

Number (percentage) with staff contact hours

	<u>Up to 3</u>	<u>4 - 6</u>	<u>7 - 10</u>	<u>More than 10</u>
United Kingdom	26 (24)	30 (29)	21 (20)	31 (27)
South Africa	9 (25)	10 (28)	5 (14)	12 (33)

Missing values = 63

When the responses were recoded into a smaller number of categories the difference between institutions was not significant (at the ,3057* level).

4.12 Number of students in session. (A10)

The number of students in a microteaching session varied from 2 to 40, with modes at 10 (14,7%) and 5 (13,5%). When recoded in the categories '1-6', '7-9', '10-11' and '12 and over', there were significant differences in the responses from the different types of institution (at the ,0003 level).

Table 4.12

Number (percentage) with different size student groups

	<u>1 to 6</u>	<u>7 to 9</u>	<u>10 to 11</u>	<u>More than 11</u>
United Kingdom	30 (24)	35 (28)	26 (21)	34 (27)
South Africa	28 (61)	2 (4)	6 (5)	10 (22)

Missing values = 36

South African universities showed more responses in the 1-6 group (61%), but the raw data included responses of 20 (3 responses), 21, 24 and 40 hours. Colleges indicated 7-9 students (38,2%), polytechnics 'More than 11' (36,8%).

4.13 Mixed or single subject groups. (A11)

Some institutions organised their microteaching for single subject groups, particularly the United Kingdom universities (86,7%) and the polytechnics (61,9%), whereas South African universities and colleges tended to favour mixed subject groups (63,0% and 53,7% respectively). When those who were not using microteaching were added to the data, it was noticeable that there were very few nil responses from South African institutions, whereas a number of nil responses were received from the United Kingdom.

Table 4.13

Number (percentage) using mixed or single subject groups

	<u>No MT used</u>	<u>Mixed</u>	<u>Single subject</u>
United Kingdom	41 (22)	50 (27)	97 (51)
South Africa	2 (4)	30 (61)	17 (35)

Missing values = 0

This difference in response could be related to the tendency in the United Kingdom to organise microteaching as part of the subject method courses and that some subject method tutors did not choose to use microteaching but had responded to the Attitude questionnaire.

The differences appeared to be highly significant (at the ,0000 level).

4.14 Length of microlesson. (A12)

Four possible choices were indicated on the questionnaire but in many cases more than one category was indicated, the combinations of choices were also coded.

Table 4.14

Number (percentage) using different maximum times for lessons

	Max 10 min	Max 15 min	Max 16+ min
United Kingdom	59 (45)	33 (25)	39 (30)
South Africa	38 (81)	6 (13)	3 (6)

Missing values = 29

South African universities were much more strongly in favour of the shorter times, 82,6% indicating a maximum of 10 minutes when the data was recoded into three categories. United Kingdom institutions favoured the 6-10 minute microlesson but showed more support, than the South African universities, for microlessons of up to and over 15 minutes (at the ,0008 level).

4.15 Type of pupils for microlessons. (A13)

The response allowed for three choices and in many cases more than one category was chosen. The use of 'peers acting as children' only was favoured by all (45,2%), especially the South African universities (59,7%). When the data was recoded to distinguish between those who used children, either with or without peers, and those who did not use children at all, the differences between the types of institution were fairly significant (at the ,0879 level).

Table 4.15

Number (percentage) using children or only peers

	Children (+peers)	Peers only
United Kingdom	30 (22)	104 (78)
South Africa	5 (11)	42 (89)

Missing values = 26

South African universities were less likely to be using children as pupils for

microlessons.

4.16 Number of pupils for microlessons. (A14)

Although four possible categories were allowed for the data was initially coded in eight categories to allow for responses which indicated more than one answer. The data was recoded to indicate the maximum size of the microclass used and the differences between the types of institution found to be significant (at the ,0017 level).

Table 4.16

Number (percentage) with maximum size of microclass

	Max 5	Max 10	Max 15	Max 15+
United Kingdom	22 (16)	58 (43)	36 (27)	18 (14)
South Africa	28 (42)	14 (38)	4 (9)	9 (19)

Missing values = 26

Whereas 42% of South African responses indicated a maximum of 5 pupils, the United Kingdom institutions tended to use a maximum of 10 and even larger numbers of pupils. This latter tendency could be due to the use of the subject method group as the peer group class or to the use of larger and more realistic groups of children.

4.17 Type of preparation. (A15A,B,C)

The purpose of this item was to identify how the students were prepared for the microteaching sessions, lectures and handouts constituting symbolic modelling, demonstration or video lessons constituting perceptual modelling. The actual responses varied from ticks to numbers, so it was decided to recode the data in three categories to indicate whether lectures (A15A), handouts (A15B) or demonstration lessons (A15C) were used.

Table 4.17Number (percentage) using different preparation methods

	A15A	A15B	A15C
	Lectures	Handouts	Demonstrations
United Kingdom	92 (79)	79 (68)	80 (68)
South Africa	36 (82)	31 (72)	21 (49)

Missing values = 47

The results showed that about 80% used lectures and 70% used handouts, the differences between the types of institution were not significant in either case (at the ,4103 and ,4370 levels respectively). The use of demonstration lessons showed a much more significant variation (at the ,0090 level). South African universities (49%) were even less than the United Kingdom universities (57,6%) in making use of demonstration lessons than either the polytechnics (70,0%) or the colleges (84,2%).

4.18 Type of supervision. (A16)

The responses to A16 indicated that the supervision was mainly by lecturers alone (74,7%), never by technicians or part-time assistants alone and, in a few college responses, by students alone. Many responses indicated that the lecturer shared the supervision with one or more others. When the responses were recoded, there was no significant difference (at the ,8468 level) between any of the types of institution.

Table 4.18Number (percentage) supervising microlessons

	Lecturer alone	Lecturer + helper
United Kingdom	99 (73)	34 (27)
South Africa	38 (81)	9 (19)

Missing values = 27

South African universities indicated the highest proportion (81%) of staff supervising without help. The usual help came from technicians (11,0%) and students (8,2%).

4.19 Use of observation schedules. (A17)

The responses to A17 showed that the majority (47%) indicated that observation schedules were used 'Sometimes' with a gradual transition from mainly 'Never' by United Kingdom universities (44,4%), through polytechnics and colleges to South African universities who mainly indicated 'Always' (43%).

Table 4.19

Number (percentage) using observation schedules

	Never	Sometimes	Always
United Kingdom	46 (34)	64 (48)	24 (18)
South Africa	5 (11)	21 (46)	20 (43)

Missing values = 27

The differences were very significant (at the ,0003 level).

4.20 Type of feedback. (A18)

The responses showed that in most cases (68%) feedback was obtained from the lecturer, the peer group and the student himself and from the lecturer and the peer group (21%). Only in two cases was the lecturer not involved in feedback. The difference between feedback from all three and feedback from the lecturer and one other was not particularly significant (at the ,1172 level).

Table 4.20

Number (percentage) providing feedback

	Lecturer + one other	All three
United Kingdom	43 (31)	94 (69)
South Africa	16 (34)	31 (66)

Missing values = 24

Polytechnics were almost unanimous (90,5%) about the use of all three to give feedback.

4.21 Type of discussion of microlesson. (A19)

The main emphasis appeared to be on group discussion only (61,0%) with 30,8% indicating both group and individual discussion. When the responses were recoded there were differences between institutions (at the ,0029 level).

Table 4.21

Number (percentage) using different types of discussion

	Group only	Individual (+ gp)
United Kingdom	74 (54)	62 (46)
South Africa	37 (79)	10 (21)

Missing values = 24

Polytechnics and South African universities tended to use only group discussions (79% and 80,4% respectively) and United Kingdom universities and colleges were more or less equally divided between only group discussion and individual discussion alone, or with the group.

4.22 Timing of discussion. (A20)

The majority of responses indicated that discussion took place 'After playback' (49,2%) and 'After lesson' and 'After playback' (12,6%), the former possibly implying that either the microlesson was not recorded or that discussion took place before playback. When the responses were recoded, the differences between the types of institution were significant (at the ,0070 level).

Table 4.22

Number (percentage) using different time for discussion

	After lesson	After playback	Later
United Kingdom	45 (33)	74 (54)	18 (13)
South Africa	5 (11)	39 (83)	3 (6)

Missing values = 23

Whereas 47,6% of polytechnic responses indicated discussion after lesson, the other institutions indicated discussion after playback, in the order United Kingdom universities (55,3%), colleges (60,0%) and South African universities (83%). A relatively small proportion (11,5%) indicated that discussion took place 'Later', particularly among South African

universities (6%).

4.23 Use of reteach lessons. (A21)

Very few responses (3,3%) indicated that reteach lessons were 'Always' used, a slight majority (53,6%) indicated 'Never'. The responses were recoded to combine those who indicated 'Always' with those who indicated 'Sometimes'.

Table 4.23

Number (percentage) using reteach lessons

	Never	Sometimes	Always
United Kingdom	77 (57)	54 (40)	5 (3)
South Africa	20 (44)	25 (54)	1 (2)

Missing values = 15

The different types of institution showed significant differences (at the ,0216 level), in that United Kingdom universities were less inclined to use reteach lessons than any of the other institutions.

4.24 Number of microlessons. (A22)

The number of microlessons for each student varied from 1 to 10, responses above nine were coded as 9. The overall results were more or less asymptotic, 45% indicated 1, 22% 2, 11% 3, 11% 4, 6% 5 with smaller responses in the higher numbers. When the responses were recoded to reduce the number of categories, the differences between types of institution were very significant (at the ,0000 level).

Table 4.24

Number (percentage) using different numbers of microlessons

	One only	Two only	More than 2
United Kingdom	71 (53)	34 (25)	30 (22)
South Africa	11 (23)	7 (15)	29 (62)

Missing values = 25

Whereas the majority of United Kingdom universities and polytechnics used only one

microlesson (57,3% and 50,0% respectively), a larger number of colleges and, especially, South African universities used more than two (40,0% and 62,0% respectively).

4.25 Type of skills specified.

After giving the number of microlessons for each student, space was allowed for the specification of skills and for any other relevant comments. The responses in this item are listed in order of popularity and are classified according to the type of institution involved. Similar skills, showing the different terminology used, are listed together.

Table 4.25

Microteaching skills specified by types of institution

Skill specified	- - - UK - - -			RSA	
	Univ	Poly	Coll	Univ	Total
Questioning, answers.	14	8	19	25	66
Explanation, explaining, exposition, giving information, instructing, presentation, teacher talk, use of examples.	15	8	9	13	45
Set, introduction, warm up, start, beginning, initiating.	8	3	9	20	40
Variety, variation of stimulus, stimulus skills, teacher liveliness, enthusiasm, arousing and sustaining interest.	5	3	11	5	24
Use of teaching (visual) aids, flash cards, OHP, blackboard.	11	2	8	3	24
Preparation, planning, management, organisation, timing, structure of lesson, pace.	7	2	10	3	22
Various, range of skills, teaching styles, global approach, methods.	7	2	4	9	22
Demonstration.	9	2	4	2	17
Use of language, clear speech, voice, communication, teaching oral.	7	3	5	1	16
Reinforcement, drilling.	1	3	6	2	12
Subject skills, use of science equipment.	5	1	5	1	12

Table 4.25 continued

Table 4.25 continued

Microteaching skills specified by types of institution

Skill specified	UK			RSA	
	Univ	Poly	Coll	Univ	Total
Content, concepts, specific factual problems, problem posing, accuracy, right level of difficulty, effective learning.	6	-	4	2	11
Interaction skills, reaction to feedback, pupil response.	-	-	1	7	8
Observation, evaluation, task analysis, objectives.	4	3	1	-	8
Movement, mobility, physical dexterity, non-verbal, bearing.	2	1	4	1	8
Closure.	-	2	1	4	7
Reading, from prepared text, story telling.	1	-	2	2	5
Group work, discussion.	-	-	1	1	2
Control.	-	-	1	-	1
Blank returns	7	4	2	10	23

As can be seen from the above information a wide variety of teaching skills and strategies are identified for the various microteaching programmes. Some choose not to specify skills and use a global approach. Where specific skills are mentioned, the skill of questioning is the most common and is usually specified as such. Exposition and introduction also receive a lot of attention, but are described in various ways. Variation and the use of teaching aids are similarly mentioned in a variety of ways, as are subject orientated skills.

4.26 Type of microteaching format.

The various components of a microteaching programme were listed and the respondent asked to place them in the sequence as used in their approach. From the many responses received, it appears that a variety of interpretations were used in responding to this item depending upon whether the sequence applied to a particular student or to a group of students. It is apparent that some staff members put a lot more effort into trying to convey their specific approach whereas others produced a comparatively simple formula. The types of organisation mentioned

are listed below, together with the number who responded in that way classified according to the type of institution.

The coding used in Table 4.26 is: L = Lesson, D = Discussion, IndD = Individual discussion, GpD = Group Discussion, NL = Next Lesson, RT = Reteach, (RT) = Reteach sometimes, Prep = Preparation, Eval = Evaluation.

Table 4.26

Types of microteaching organisation by type of institution

Microteaching format.	- - - - UK - - - -			RSA	
	Univ	Poly	Coll	Univ	Total
<u>Playback after lesson</u>					
L-P-D	9	3	6	7	25
L-P-D-NL	3	2	4	9	18
L1-L2-L3-P-D	3	-	2	1	6
L1-L2-L3-P1-D-P2-D-P3-D	2	-	-	-	2
L-NL-P-D	-	-	-	1	1
L-NL-P-D-RT	-	-	-	1	1
L-P-D-Eval	-	-	1	-	1
L-P-Eval-D	-	-	-	1	1
L-P-RT-Eval	-	1	-	-	1
L-P-D-RT-NL	1	-	1	4	6
L-P-D-RT	1	2	-	-	3
L-P-RT	1	-	-	-	1
L-P	1	-	-	-	1
L-P-D-(RT-D)	1	-	-	-	1
L-P-GpD-IndD	-	-	1	-	1
D-L-P	-	-	1	-	1
D-L-P-D-	1	-	1	-	2
Lect-Video-Prep-L-P-D-RT-P-D	-	-	1	-	1
Prep-L-P-IndD-GpD-RT	-	-	1	-	1
<u>Discussion after lesson</u>					
L-D-P	10	2	1	8	21
L-D-P-NL	2	-	-	-	2
L-D-P-(RT)-NL	1	-	1	5	7
L-D-P/D-D-NL	-	-	1	1	1
L-D-P-RT	1	-	-	-	1
L-Ind comment-P-Ind comm+Gp	-	-	1	-	1
L-D-P-D	5	-	1	-	6
L-D-P-D-NL	-	-	2	-	2
L1-L2-L3-D-P	-	-	1	1	2
Prep-L-D-P-D-(RT)	1	-	-	-	1
<u>No playback</u>					
L-D	7	5	5	-	17
L-D-NL	4	2	2	-	8
L-D-RT	-	-	2	-	2
D-L-RT-NL	1	-	-	-	1

As can be seen from the above data, there was a greater tendency to favour the Playback before the Discussion, but an appreciable number chose Discussion before Playback. Those that

used No Playback were restricted to the United Kingdom institutions and a higher proportion of South African universities appeared to use combinations involving Reteach.

4.27 Studio/room facilities. (A25)

The majority of responses indicated that most staff (50,9%) operated their microteaching programmes under improvised conditions but a reasonable proportion (36,5%) indicated that they had purpose-built studios. Relatively few responses (6,0%) indicated that the improvised facilities had the controls for recording outside the room. The responses were combined to compare those with only improvised facilities with those who had access to purpose-built studios.

Table 4.27

Number (percentage) with different physical facilities

	<u>Improvised</u>	<u>Purpose built (+improvised)</u>
United Kingdom	76 (61)	48 (39)
South Africa	22 (50)	22 (50)

Missing values = 36

There appeared to be no significant differences between the types of institution (at the ,1368* level), but it appears that South African universities tend to have more access to purpose built studios for microteaching than United Kingdom institutions have.

4.28 Technical facilities. (A26A,B,C)

As many responses indicated more than one type of technical facility, this item was coded to identify those using colour television (A26A), those using black and white television (A26B) and those using audio or live facilities (A26C).

Table 4.28Number (percentage) with different technical facilities

	A26A	A26B	- - A26C - -	
	Colour TV	Black-white TV	Audio	Live
United Kingdom	64 (47)	51 (38)	19 (16)	30 (22)
South Africa	21 (46)	27 (59)	10 (22)	2 (4)

Missing values = 26

There were no significant differences (at the ,8378 level) between types of institution over the use of colour television, 46,7% used one or more cameras. More South African universities (59%) used black and white television with one or more cameras, the difference with the other institutions being more significant (at the ,0629 level). Relatively small proportions of responses indicated that audio recording (16,1%) or live microlessons (17,8%) were used. Very few South African universities (4%) indicated that they used live microlessons, but the difference from the United Kingdom institutions was not significant (at the ,1443 level).

4.29 Recording of microteaching. (A27)

Responses indicated that recordings of microlessons were done mainly by lecturers (26,4%), technicians (22,5%) or students (14,0%), operating alone. Various combinations of lecturer with assistants and of assistants recording without the lecturer were combined into two distinct categories for comparison purposes

Table 4.29Number (percentage) using different staff to record

	Lect only	Tech only	Lect +asst	No lect
United Kingdom	34 (30)	27 (24)	25 (22)	27 (24)
South Africa	13 (28)	13 (28)	7 (16)	13 (28)

Missing values = 48 incl. 9 UK responses = Not applicable

There appeared to be no significant difference between the different types of institution (at the ,4261 level). There were no South African responses to that indicated that the

question did not apply, implying that they did not use live microlessons by themselves.

4.30 Relation with school practice periods. (A28A,B,C,D,E)

As the responses very often consisted of several alternatives, they were coded into five separate groups and the coded responses analysed independently of each other.

Table 4.30

Number (percentage) indicating relation with school practice

	A28A	A28B	A28C	A28D	A28E
	Replaces	Before	In between	After	During
United Kingdom	1 (1)	112 (83)	40 (30)	9 (7)	15 (11)
South Africa	1 (2)	39 (85)	16 (35)	8 (17)	1 (2)

Missing values = 26

There was almost unanimity (98,9%) shown by A26A that microteaching could not replace school teaching practice and no difference in the responses from different types of institution (at the ,7458* level). The responses to A26B,D and E showed no significant differences (at the ,2160 and ,1367* and ,2237* levels respectively) between the different types of institution. Of the total responses, 77,8% indicated that microteaching was before school teaching practice and only 9% indicated that it was either after or during teaching practice.

The responses to A26C did show a significant difference (at the ,0309 level) and indicated that polytechnics were equally divided between those who organised microteaching in between teaching practices and those who did not, whereas the other institutions tended not to have microteaching in between teaching practices. Of United Kingdom universities only 20,3% of staff indicated that they used microteaching in between teaching practices, as did 36,6% of college staff and 35% of South African university staff.

4.31 Assessment of microteaching. (A29)

The majority of responses (72,2%) indicated that an informal assessment was used.

Table 4.31Number (percentage) using assessment of microteaching

	None	Informal	Formal + inf
United Kingdom	25 (19)	100 (74)	10 (7)
South Africa	6 (13)	30 (65)	10 (22)

Missing values = 26

Those responses which indicated both formal and informal were combined as 'Formal' and although 22% of South African university staff chose that category, as opposed to less than 10% of United Kingdom universities, colleges and, particularly, polytechnics (0%), the difference was not significant (at the ,1342* level).

4.32 Type of assessment. (A30, A31)

The overall responses were distributed over global (44,8%), specific (32,8%) and both specific and global (22,4%).

Table 4.32Number (percentage) with different types of assessment

	- - - - - A30 - - - - -			- - -A31- - -	
	Spec.	Glob.	Spec+glob	Indiv.	Whole
United Kingdom	26 (42)	46 (50)	20 (22)	49 (88)	7 (12)
South Africa	18 (43)	14 (33)	10 (24)	30 (86)	5 (14)

Missing values = 73 for A30, 116 for A31, including:

Not applicable = 15 UK and 1 RSA.

The differences in A30, between staff from different types of institution, were significant (at the ,0369 level). South African universities tended to use more specific assessment, as did the colleges, whereas the United Kingdom universities and polytechnics were more inclined towards global assessments. Polytechnics showed less (7,1%) use of both specific and global.

Whether the assessment was of the individual lesson or of the whole microteaching course (A31) showed no significant difference (at the ,5507* level). The majority (86,7%) of staff

assessed individual microlessons and polytechnic staff were unanimous.

4.33 Maintenance of electronic equipment. (A32A,B)

The responses indicated more than one choice and the data was coded to identify those who did or did not use a departmental technician (A32A) and those who did or did not use a technician centred in the Audio-visual section or belonging to the institution as a whole or belonging to an external contractor (A32B).

Table 4.33

Number (percentage) with different maintenance facilities

	A32A	A32B
	Dept. tech	Inst/AV or Ext.Contract)
United Kingdom	59 (51)	63 (55)
South Africa	17 (36)	33 (72)

Missing values = 46 including:

Not applicable = 16 UK.

The responses to A32A were very significantly different (at the ,0000 level) for the different types of institution and indicated that United Kingdom universities were more likely (72,7%) to use a departmental technician for maintenance than polytechnics (23,5%), colleges (21,9%) or South African universities (37,0%).

The responses to A32B were also very significantly different (at the ,0000 level) and indicated that United Kingdom universities were less (33,3%) likely to use a technician for maintenance from the institution as a whole or from an external contractor, than were polytechnics (82,4%), colleges (84,4%) or South African universities (71,1%).

4.34 Correction of faults. (A33)

The responses indicated that few (1,8%) staff experienced faults never being repaired. The responses were recoded to see whether faults were repaired promptly or not.

Table 4.34Number (percentage) indicating when faults are corrected

	<u>Promptly</u>	<u>Eventually</u>
United Kingdom	100 (88)	13 (12)
South Africa	34 (77)	10 (23)

Missing values = 50 including:

Not applicable = 16 UK and 1 RSA.

There was some indication that in South African universities the faults were not promptly repaired (23%), the difference with the United Kingdom institutions was significant (at the ,0548* level).

4.35 Abandoning due to faults. (A34)

The responses showed that United Kingdom institutions rarely, approximately 17%, had to abandon microteaching due to faults whereas South African universities indicated that it was more likely (40%) to happen.

Table 4.35Number (percentage) abandoning microteaching due to faults

	<u>Never</u>	<u>Sometimes</u>
United Kingdom	98 (85)	17 (15)
South Africa	28 (60)	19 (40)

Missing values = 45

The difference was significant (at the ,0266 level).

4.36 Time operating microteaching programmes. (A35)

The response indicated that the number of years varied from 1 to 16 with a similar spread shown by all types of institutions, United Kingdom and South African, with the most typical period being up to 6 years and a significant group having operated for 10 years. When the

responses were recoded into four categories the differences between the types of institution were significant (at the ,0572 level).

Table 4.36

Number (percentage) indicating years operating microteaching

	<u>1 to 3</u>	<u>4 to 5</u>	<u>6 to 9</u>	<u>More than 9</u>
United Kingdom	18 (10)	36 (20)	36 (20)	88 (50)
South Africa	14 (29)	13 (27)	6 (12)	16 (32)

Missing values = 0

A higher proportion, 29%, of staff from South African universities had been operating microteaching programmes for only 1 to 3 years and a lower proportion, 32%, had been operating for more than 10 years. Polytechnic staff tended to have operated microteaching longer, 56,3%, than those from other types of institution, whereas fewer United Kingdom universities (9,8%) and colleges (7,4%) indicated that they had been operating for 1 to 3 years. The fact that several South African universities appeared to have been operating microteaching for a shorter time than those in the United Kingdom is most likely due to the recent establishment of postgraduate teacher training in the Black Homeland universities.

4.37 Comments from Organisation questionnaire

The comments that were invited by asking for any developments or cutbacks in the use of microteaching produced a variety of different responses (see Appendix 2.4). An analysis of these open-ended remarks reveals that attention has been give to the following, listed in order of priority and grouped according to the relation they have to each other.

Table 4.37

Number of references to cutbacks or developments in microteaching

	United Kingdom			South Africa	
	Univ	Poly	Coll	Univ	Total
1) No use of microteaching stated.	19	8	12	0	39
2) Minimal use of microteaching due to shortness of time etc.	11	2	13	1	27
3) No use made of technical sophistication.	4	3	4	1	12
4) Criticism of aspects of the Stanford model.	8	1	7	0	16
5) Preference for global approach.	8	1	5	4	18
6) Indication of a type of microteaching which did not fit the definition given.	10	1	7	0	18
7) Reference to school-based approach to microteaching or other related activity.	15	2	8	1	26
8) Reference to cutbacks in use of microteaching.	10	4	2	0	16
9) Lack of adequate facilities.	10	0	3	2	15
10) Lack of technicians.	5	0	0	0	5
11) Improvement in facilities for microteaching.	3	1	5	6	15
12) Plans to increase time allocation.	5	1	1	0	7
13) Use of microteaching for remedial work later.	2	0	0	0	2
14) No comments made.	20	5	10	4	39

Although a number of positive statements were made about the way microteaching was being used in the different situations and which have not been included, the overall impression gained from the comments is that microteaching, particularly the Stanford model, is less favourably received in the United Kingdom, than in South Africa. A variety of reasons are given, such as: general criticism of the Stanford model or aspects of it, shortage of available time, tendency not to use technical sophistication and the influence of the need for more school-based experiences. The skills approach, which is part of the Stanford model, is time consuming and, hence, appears to be coming under pressure from a variety of different sources. Those anticipating development of microteaching by giving more time to it are relatively few in number, whereas there are more reports of cutbacks in the use of microteaching. The improvement of facilities for microteaching is enhanced by the South African responses. It is

difficult to know how much importance can be attached to data collected in this way, particularly in view of the number of 'No comments' made. However, it may help in the interpretation of other evidence.

In Chapter 6 the results of the Organisation Questionnaire are summarised in order to extract the main points relating to the United Kingdom survey (Section 6.1), the South African survey (Section 6.2) and the comparison between the United Kingdom and South Africa (Section 6.3).

In the next chapter the results of the Attitude Questionnaire are analysed and related to the different types of organisational factors as identified by the Organisation Questionnaire. The responses from the surveys are further related to the research findings as recorded in the literature. Particular attention is paid to those areas which have developed very active research fields, such as modelling, discrimination training, Video Self-Confrontation, reteach lessons, skills approach, behavioural modification, supervision and the economic factors.

CHAPTER 5

RESULTS FROM THE ATTITUDE QUESTIONNAIRE.

Each one of the thirty-four items in the Attitude Questionnaire (see Appendix 1.2c) was scored on a twelve point scale and in most cases responses showed a full use of the scale from 1 to 12. In no case was a range of less than nine used. This resulted in a spread of responses which was desirable for making comparisons. The scale was reduced to a four point Thurstone-type scale, so that statistical tests of significance could be used. This scale reduction was achieved by equating the 'too weak' or 'too strong' ratings with the 'just right', on the grounds that this was the initial choice which most resembled the subject's own opinion. Hence, 1,2,3 = 2; 4,5,6 = 5; 7,8,9 = 8; and 10,11,12 = 11. The four alternatives for each item can be conveniently referred to by the middle of the three numbers in each case i.e. 2, 5, 8 and 11.

In the following discussion of the individual items two percentages are quoted, the first shows the responses in agreement with the opinion stated on a twelve point scale, whereas the second percentage (in parentheses) includes those who indicated the opinion was 'too weak' or 'too strong' i.e. as a four point scale. The total percentages do not necessarily add up to 100% because there were in most cases a number of missing responses.

The figures preceding the opinion statements for each item represent the number of United Kingdom responses recorded for each of the twelve points. The number of missing values for the total United Kingdom responses is also included. The total number of responses to the Attitude Questionnaire from the United Kingdom was 163.

The results for each item, on a four point scale, were crosstabulated against the results for the Items SUBJGP, A4 to A35 from the Organisation Questionnaire, which were recoded where necessary to reduce the number of alternatives. Differences in the total responses for different sub-groups were examined for their significance using SPSS Statistic 1, i.e. Chi-square, and the level of significance is quoted in the text when it is of the order of .05 (5%) or less. An asterisk (*) after the level of significance indicates those results which must be interpreted with caution as the number of cells with expected frequencies of less than

5 is more than 20%.

Each item from the Attitude Questionnaire was also tested for significant differences in the responses from the United Kingdom universities, colleges and polytechnics, as well as for differences between the United Kingdom institutions and the South African universities. The code used for the types of institution, in both cases, was UPC. The total number of responses from South African universities was 52. The number of missing values, quoted after the tables showing the percentage of different institutions' responses, includes the total number of respondents to either the Organisation or the Attitude Questionnaires, or both, from both surveys, i.e. 226.

The complete list of Chi-square levels of significance for all the crosstabulations is given in Appendix 3.4.

5.1 Physical and technical facilities

The provision of special physical and technical facilities is seen by some as a necessary prerequisite for the management and organisation of a microteaching programme. The three items in this section are linked according to the degree of technical sophistication, since a colour or black/white multi-camera video system is likely to require special studios and viewing rooms with competent technicians to maintain and operate the system; whereas 'live' teaching sessions, or even audio recording, can be organised in a normal room and require little, if any, technical back-up.

5.1.1 Physical facilities X11

Number of UK
responses Option:

- 7 69 14 2)= An improvised classroom, with the recorder in the room, is adequate for MT.
- 3 11 8 5)= An improvised classroom is adequate as long as the recording and control are outside.
- 6 18 5 8)= MT requires special room facilities but the recording and replay can be in the same venue.
- 2 14 2 11)= MT requires specially designed studios with separate facilities for recording and replay.

Missing values = 4.

The single most popular response 42,3% (55,2%) supported the view that an improvised

classroom with recorder in the room was adequate. This was the lowest level, 2), of physical facility identified on the four point scale. However, as can be seen, the remainder of the responses were divided fairly evenly between the other choices: 6,7% (13,4%) favoured 5), an improvised classroom with recording and control outside, 11,0% (17,8%) chose 8), special room facilities with the replay in the same venue as the recording, and 8,6% (11,0%) chose 11), specially designed studios with separate recording and replay facilities.

The results from different United Kingdom institutions were not significantly different (only at the ,0986 level) but colleges tended to favour 11), the specially designed studio, and universities the two improvised classroom options 2) and 5). The results for different subject groups were significantly different (at the ,0004* level). Of the science group, 83,8% favoured the improvised classroom with the controls inside; this might well relate to the need to use a science laboratory. There was also some indication, from A11, that staff not using microteaching tended to see it as requiring special facilities of some sort (at the ,0252* level). Similarly, from A21, those who sometimes or always made use of the reteach lesson were even more in favour of special facilities (at the ,0007 level) and this opinion was mainly supported by those who made use of purpose built accommodation, even though 79,4% of those using improvised accommodation felt it was adequate (at the ,0000* level). Item A26B showed that staff using black and white television facilities were more in favour of special facilities than those who were not (at the ,0312* level), whereas those using colour television were not as significantly different (at the ,5388 level). This was possibly because of the use of colour Portapak equipment as opposed to black and white studio television equipment with camera mixers and special effect generators. The results from A20 show (at the ,0535* level) that those favouring discussion after playback also favoured the more sophisticated facilities, whereas 85,3% of those favouring discussion after the lesson chose the simplest facility, option 2). The suggested polarisation between the technically sophisticated approach and a more simple one, relying on improvisation is already apparent.

The results from A12 showed that 84,4% of those using over 15 minutes for a microlesson favoured the simplest physical facility, whereas 57% of those using less than 15 minutes favoured it (at the ,0426* level).

Table 5.1Percentage of different institutions' responses for Item 1.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	59,3	16,0	17,3	7,4	81
polytechnics	57,1	10,7	28,6	3,6	28
colleges	52,0	12,0	14,0	22,0	50
RSA universities	25,0	3,8	50,0	21,2	52

Missing values = 4

South African universities showed a very significant difference (at the ,0000 level) when compared with the three types of United Kingdom institution. Whereas 50-60% of the latter favoured 2), i.e. the simplest improvised accommodation, 50,0% of South African universities favoured 8), i.e. special room facilities with recording in the same venue, while a further 21,2%, like the colleges, chose separate facilities for recording and viewing.

5.1.2 Technical sophistication X12

Number of UK
responses Option:

2 24 5 2) = No recording of lessons is necessary for MT to be of value.

2 0 3 5) = Sound recording of MT lessons is adequate for MT.

4 80 16 8) = CCTV recording using one camera is adequate for MT.

9 16 2 11) = CCTV recording using two or more cameras is necessary for MT to be of value.

Missing values = 0.

The majority, 49,1% (61,4%), felt that video recording using one camera was adequate for microteaching. Only (3,0%) were in favour of audio recording only but 14,7% (19,0%) favoured no recording at all. On the other hand 9,8% (16,5%) preferred video with two or more cameras.

There was no significant difference between the results for staff from the different type of institution or for the results for staff in different subject groups. The results of A5B showed that 88% of staff having a technician available for the microteaching were in favour of CCTV recordings involving one or more cameras, whereas only 58,2% of those working without a technician favoured CCTV (at the ,0016* level). The results for A12 showed that, whereas 55,6% of those who chose 2) prefer longer microlessons, 75,0% who chose 5), 54,8% who chose 8) and

46,2% who chose 11) favoured a maximum of 10 minutes (at the ,0121* level). According to A17, those who always used observation schedules were more in favour of the use of at least one CCTV camera (at the ,0451* level) and of those who favoured no recording at all there was no one who always used observation schedules. There was a strong correlation between those using black/white or colour facilities with the need for CCTV cameras, the difference with those not using any was significant (at the ,0000* and ,0358* levels respectively). Of those using audio or live situations for microteaching again the difference in response was significant (at the ,0000* level), 58,9% of the audio users favoured CCTV, whereas the 'live only' group were committed (73,1%) to no recording. The remainder (26,9%) favoured CCTV with one camera. Whether the recording was actually done by the staff member, by a technician or by others (involving the lecturer or not) 80-90% favoured the use of CCTV, but again the 'live only' (i.e. those recording 'Not applicable') group showed a strong preference (78,9%) for no recording (at the ,0000* level).

A study of the literature shows that a lot of attention has been paid to the technical sophistication for operating a microteaching programme effectively. In the early Stanford approaches the use of video was not seen as a necessary factor (Allen & Ryan 1969) and it was not seen as the essence of microteaching (McKnight 1971) as some authorities seemed to indicate. As the use of microteaching spread to other establishments in the early seventies, it became unusual to hear of the implementation of microteaching without television (Griffiths 1972). The use of video was seen as the most dominant feature about which microteaching programmes were organised and as adding a powerful dimension (Foster et al 1973). Even so Ward's survey showed that a sizeable number of American institutions did not use video even though the largest single group of respondents were using it at least half of the time and only 75% of these were using it all the time.

The use of video finds support from many authorities, since "To be able to see yourself teach is worth hours of other types of observation." (Bloom 1969: 315). The use of video appears to enhance the effectiveness and flexibility of microteaching (Goodkind 1968; Kallenbach 1969; Voth 1968) and there are comments on the favourable reactions of students towards it (McIntyre et al 1977) such as "...most students acknowledge any stress or artificiality are outweighed by the considerable advantages to be obtained from the experience." (Turney et al 1973: 10), and

"Oh, wad some power the giftie gie us
 To see oursels as ithers see us!
 It wad frae monie a blunder free us,
 And foolish notion."

(Robert Burns - To a louse)

One study reported that video was ranked last in students' rankings of elements relating to their success in a microteaching programme (Wood & Hedley 1968) and an experimental study of various audio-visual combinations, involving no recording, camera on pupils only, camera on teacher only and camera on both teacher and pupils, showed no difference in the effectiveness of performance (Waimon & Ramseyer 1970). It appears to some as "...not essential to the exercise" (Stones & Morris 1972: 81) or "...perhaps less potent than is assumed" (McIntyre et al 1977: 211).

Other studies show that, combined with other techniques such as interaction analysis (Wragg 1971) or verbal feedback from a supervisor (McDonald & Allen 1967; Olivero 1970), there is some evidence of the value of video taping microteaching lessons. Flanders sees a major difficulty from 'hardware fascination' and notes "Television recreates behavior to a camera, but the work of conceptualizing it remains" (Flanders 1970: 261). In any case the contribution of 'mechanical feedback' is more complex than some writers admit (Griffiths 1972). One of the main attractions of video is its ability to focus on a student's presentation and consequently there are less distractions from multiple stimuli normally experienced in classroom observation (Olivero 1970). Even so it is pointed out that there is little clear cut evidence that video is necessary for improving teaching skills (Brown 1975a), that it is ineffective in changing the teaching-learning process (Perlberg 1983a) and that there are no really discernible effects of self viewing as against no self viewing (Bierschenk 1972). Possibly students benefit more from interaction analysis and regular controlled observation (Kearney 1970).

Many writers express concern about the anxiety and tension experienced by students and others who are exposed to video recording; Kearney saw it as seemingly efficient but highly threatening (Kearney 1970). Self-confrontation has become a study in its own right, whereas some see the experience as the most dramatic component of a microteaching programme (Meier 1968) others see the need for systematic training, by feedback from interaction analysis or from a supervisor, since the first experience might produce feelings of surprise, fear, shock

and the adoption of defensive attitudes (Brown 1975b; Holzman 1969; Hough et al 1969).

Arousal, stress, anxiety and tension are all negative effects of Video Self-Confrontation (VSC) but it is seen as a necessary evil which can have positive results by facilitating behavioural change and human growth (Perlberg 1983b). Perlberg stresses that the concept of curiosity depends upon conflict and arousal and the concept of growth needs are in contrast to deficiency needs; hence, "Scientists in the laboratory, or creative artists, are all aroused, develop strong drives and go through stages of stress, conflict and anxiety." (Perlberg 1983b: 644). Trott concluded that the cosmetic effect, experienced by students, is related to anxiety awareness, since both maintained a significant level after several microteaching sessions and both increased after a break (Trott 1977).

These two conflicting theories based on affect, i.e. stress and anxiety producing, and on cognition, i.e. feedback to control behaviour, need to be merged into an integrated conceptualization so that VSC should be used properly, so that it should not be wasted by causing harm (Perlberg 1983b). As for clients in psychotherapy, it is evident that personal characteristics will influence the benefit that student teachers will derive from VSC.

"The most promising...is YAVIS: young, attractive (and perhaps anxious or at least in some pain), verbal, intelligent and successful...the least...likely to benefit is the HOUND: homely, old, unattractive, non-verbal and dumb."

(Garfield 1971: 484)

It appears that the choice of CCTV with one camera might be considered a reasonable compromise both from the point of view of the responses in this study and from the findings of research studies. As the support for video is open to debate, there seems even less grounds for a two or more camera system with the need for more specialised technical support and physical facilities. It also appears that there is a very strong commitment among a minority of staff to the live microteaching situation and one based on choice, with only a small proportion preferring one CCTV camera.

Table 5.2

Percentage of different institutions' responses for Item 1.2

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	19,3	2,4	63,9	14,5	83
polytechnics	23,1	3,6	67,9	17,9	28
colleges	23,1	3,8	53,8	19,2	52
RSA universities	2,0	2,0	62,7	33,3	51

Missing values = 1

South African universities showed a difference (at the ,0605* level) compared with United Kingdom institutions in that they were almost unanimous in choosing CCTV recording, 62,7% favoured 8) and 33,3% favoured 11), whereas, although there was little difference in the small number of responses in those who chose sound recording, a larger number of responses from United Kingdom universities, polytechnics and colleges (19,3%, 10,7% and 23,1% respectively) indicated no recording of lessons.

5.1.3 Technical staff X13

Number of UK
responses Option:

- 1 31 7 2)= No assistance needs to be available for MT.
- 1 13 17 5)= Unqualified assistants are sufficient, to set up the furniture and cameras for MT.
- 13 28 10 8)= Technical assistants are necessary to operate and manage the equipment as well as to set it up.
- 5 31 4 11)= Competent technical assistants must be available to set up the studio, operate the equipment and repair any faults that might arise.

Missing values = 2

A wide variation of opinion was expressed over the need for technical or other assistance. Responses were fairly evenly divided among the four possibilities with only a very slight majority, 36,2% (55,8%), in favour of some sort of qualified assistance; 19,0% (23,9%) felt that no assistance was necessary and 8,0% (19,0%) that unqualified assistance was sufficient to set up the furniture and cameras. On the other hand, 17,2% (31,3%) required technical assistance to operate and manage the equipment and a further 19,0% (24,6%) even more competent assistance, to repair any faults that may arise as well as operating the equipment.

There was no significant difference between the results for staff from the different types of United Kingdom institutions or for the different subject groupings. However, of those staff with technical assistance available for microteaching, as shown by A5B, only 10,4% felt that no assistance needed to be available, as opposed to 50,9% of staff not having technical assistance, whilst those with technical help were very much more in favour of having it (at the ,0000 level). It appears that only when they have technical assistance do staff appreciate the service. Where lecturers used technicians to record, as shown by A27, they were obviously seen as indispensable (90,5%). Where lecturers did their own recording only 35,5% required some kind of technical assistance and where a number of different people were involved in the recording opinions tended to be more equally divided among the four options, 61,1% of the no recorders indicating that no assistance was needed (at the ,0034* level). This was also supported by the results from A16, since 91,2% of those who required no assistance operated alone in their supervision of microteaching, whereas those who chose 11) were equally divided between those who supervised alone and those who supervised with help (at the ,0050 level). The results from A12 show that staff who chose 21) tended to use longer microlessons, particularly when compared to those who chose 5) or 11) (at the ,0187 level).

Staff using purpose built microteaching facilities were also more in favour of technical assistants (41,5%) and particularly competent ones (36,6%), as compared with those in improvised accommodation i.e. 24,6% and 14,5% respectively (at the ,0010 level). Similarly 67,8% of those using colour CCTV, as compared with 39,7% of those not using colour, required technical assistance of some sort (at the ,0074 level), whereas, although those using black and white CCTV were significantly different from those who were not (at the ,0103 level), they felt less need for technical assistance (only 41,9%). Those staff using audio or live situations tended to favour no assistance at all, i.e. 47,1% and 48,0% respectively, as compared with 17,9% who were using CCTV recordings (at the ,0576* level). With increasing years of operating microteaching programmes there appears to be an increasing need for technical or other assistance (at the ,0196* level), whereas 57,1% of those with 1 to 3 years experience felt that no assistance was necessary, only 18,1% with 10 years or more felt the same.

Table 5.3

Percentage of different institutions' responses for Item 1.3

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	24,1	22,9	31,3	21,7	83
polytechnics	25,9	7,4	33,3	33,3	27
colleges	23,5	19,6	31,4	25,5	51
RSA universities	13,5	11,5	32,7	42,3	52

Missing values = 2

There was a tendency for South African universities to favour the more competent technical assistance; 42,3% chose 11) and 32,7% 8), with only 13,5% who chose 2), but the difference was not significant (at the ,2468 level).

5.1.4 Physical and technical facilities X1

When the responses to the three items were reduced to a four point scale, of first choice of opinion, and crosstabulated against type of United Kingdom institution, a wide variety of combinations of responses for Items 1.1 to 1.3 (X11 to X13) were noted, varying from 2,2,2 (16 responses) to 11,11,11 (6 responses). With the number of responses in parentheses, the most popular cluster of United Kingdom subjects included combinations 2,8,2 (16), 2,8,5 (12), 2,8,8 (25), 2,8,11 (7) and 5,8,5 (8), 5,8,8 (2), 5,8,11 (4) indicating responses in favour of an improvised classroom and one television camera. On the whole this cluster was divided about the type of technical or other assistance needed but tended to favour the technical assistance sufficient to operate and manage the equipment and to set up the furniture and cameras. Another United Kingdom cluster also supported the need for more sophisticated resources and included the combinations 8,8,8 (6), 8,8,11 (5), 8,11,8 (6), 8,11,11 (4) and 11,11,11 (6), 11,8,11 (5), 11,8,8 (3).

South African responses formed a more clearly defined cluster which tended to be based on the need for more sophisticated facilities and contained the combinations 11,11,11 (7), 8,8,8 (9), 8,8,11 (3), 8,11,8 (4), 8,11,11 (4).

The crosstabbing of the results to 1.2 Technical sophistication and 1.1 Physical

facilities was highly significant (at the ,0000* level). It revealed that of those choosing CCTV with two or more cameras 44,4% and 25,9% favoured special room facilities and a specially designed studio respectively. The improvised classroom with the recorder in the room was adequate for 61,6% of those using CCTV with one camera, 82,1% of those using no recording and 60,0% of those who chose audio. Of those preferring the improvised classroom with controls inside, 67,8% indicated that CCTV with one camera was adequate.

Similarly the crosstabbing of 1.2 Technical sophistication and 1.3 Technical staff was also highly significant (at the ,0000* level). Those who required technical assistance to operate and manage the equipment consisted of 70,6% of those using CCTV with one camera, whereas those who required more competent technical assistance included 55,0% of the one camera group and a further 32,5% of those using CCTV with two cameras. However those choosing CCTV with one camera were fairly evenly divided between no assistance (18,2%), unqualified assistants (23,2%), technical assistants to operate (36,4%) and competent assistants to repair faults as well (22,2%).

5.2 Preparation for Microteaching

The logistics of operating a microteaching programme are such that a number of factors have to be taken into account when planning and preparing. Many of these factors involve long term decisions and, as such, are dealt with in other sections of the questionnaire. Those factors which are relatively more short term are dealt with in this section but, as has been seen from the results of the factor analysis in Chapter 3, the items that compose this section do not have the same coherency that items in other sections appear to have. This does not, however, diminish the importance of some consideration for these items in the preparation and planning of a microteaching programme.

5.2.1 Content of lessons X21

Number of UK
responses Option:

- 2 18 8 2)= Students should be completely free to choose the content of all MT lessons at all times.
- 6 42 13 5)= Students should be free to choose their content for MT lessons but staff approval should be sought.
- 14 45 6 8)= Students should be provided with a limited list of suitable topics to choose from when preparing MT lessons.
- 4 2 0 11)= Students should be allowed no choice in the selection of content for their MT lessons, tutors should indicate the most suitable content for particular skills.

Missing values = 3

Only 11% (17%) favoured completely free choice in the content of microteaching lessons, the majority favoured some control by staff – 25,8% (37,5%) preferring students to have free choice but requiring some staff approval whereas 27,6% (39,9%) felt that a limited list of suitable topics should be provided. Only 1,2% (3,7%) favoured no choice in the selection of content and that tutors should indicate the most suitable content for particular skills.

The results for A4 show some differences (at the ,0558* level) suggesting that the size of the student group organized for microteaching affects the choice of option; yet of the few who chose 11), 83,3% organised large groups, whereas for the other choices no obvious trend is apparent. It is not surprising that A12 shows a difference (at the ,0094* level) between staff operating mixed subject groups, who formed 46,4% of those favouring complete freedom, and staff operating single subject groups, who formed 55,7% of those favouring a free choice with staff

approval, as the latter were more able to give the specialist advice or approval. Even so approximately the same proportion (40%) of both groups were in favour of a limited list of suitable topics. Staff not operating microteaching programmes were not significantly different from those who were, in that they formed 25-30% of each group responding to the first three options.

Staff using black/white television were also significantly different (at the ,0308* level), in that they tended to favour 5), freedom with staff approval, and 2), complete freedom of choice (i.e. 43,2% and 27,3% respectively), whereas more (50%) of those not using black/white television were in favour of a limited list of suitable topics. This might well reflect the feeling that students being televised should be placed under as little extra strain as possible, yet the tendency appeared the other way for staff using colour television, but the difference was not significant (at the ,4863 level). The results from A30 show that staff assessing specific aspects tend to favour the options allowing greater freedom to students in choice of content, whereas those assessing globally tended to favour 8) (at the ,0338* level). The difference (at the ,0262* level) shown by A33, concerned with whether faulty equipment is corrected promptly or not, is not easily interpreted as it appears to be unrelated to the students' choice of content.

Table 5.4

Percentage of different institutions' responses for Item 2.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	9,9	42,0	43,2	4,9	81
polytechnics	25,0	32,1	39,3	3,6	28
colleges	25,5	35,3	37,3	2,0	51
RSA universities	38,5	32,7	25,0	3,8	52

Missing values = 3

A similar percentage, 30-40%, of all institutions favoured 5), but whereas the majority of United Kingdom institutions tended towards 8), South African universities showed a higher percentage (38,5%) in favour of 2) (at the ,0569* level).

5.2.2 Planning of microteaching lessons X22

Number of UK
responses Option:

- 2 32 14 2)= Students should plan all their lessons themselves.
14 61 9 5)= Students should plan their MT lessons eventually but initially they should be given some direction.
5 17 5 8)= Students should be given topics from which to plan their MT lessons.
0 0 0 11)= Students should teach MT lessons planned for them.

Missing cases = 4

The majority of opinion supported the view that students should plan their own lessons and included 37,4% (51,5%), who felt that some direction should be given initially, and 19,6% (29,4%) who felt that even this was not necessary. No one was in favour of students teaching lessons planned for them and 10,4% (16,6%) favoured topics to be given by staff from which students should plan their lessons.

The results from A10 show some differences (at the ,0325 level) depending upon the number of students in the microteaching session. No clear tendencies are evident, however, except that 47,4% of those who chose 8) had less than six students in their group.

The use of colour television facilities showed a difference (at the ,0498 level), in that more staff using colour CCTV were inclined towards giving students topics to plan from, whereas more of those not using colour CCTV tended towards students planning their own lessons. The difference shown by A32B (at the ,0275 level) and concerned with the maintenance by a technician outside the Department, appears to be unrelated to the planning of microlessons.

Whereas most staff argue that the preparation and planning of lessons is an essential part of a student's preparation for teaching, whether through a microteaching programme or not, an interesting alternative has been proposed where students are given a package of lesson material for a peer group session as they arrive. A few minutes are devoted to the 'preparation' by the 'student teacher' and by the 'pupils', who may be given particular roles to play. This technique is designed to prepare and encourage a student teacher to be more spontaneous in his teaching and this, it is argued, can be more effective preparation for the real classroom situation than a precisely structured, well-rehearsed format (Oakley 1984).

The actual term used in relation to the student's performance has come under some discussion in the literature. Gregory prefers to use 'spell of teaching' or 'episode' rather

than a micro- or mini-lesson, both of which tend to focus on the completeness of the exercise, implying a beginning, a middle and an end, which the skills approach does not necessarily require (Gregory 1980).

The responses to A26A, as shown by staff using colour television, are significantly different (at the ,0498 level) to those from staff who do not use colour television, in that the former tend to favour the idea of topics from which students plan their lessons whereas the latter favour students planning their own lessons themselves. The responses to A26E shows the opposite tendency for staff using black/white facilities, but the difference is not significant (at the ,2806 level).

Table 5.5

Percentage of different institutions' responses for Item 2.2

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	29,6	51,9	18,5		81
polytechnics	28,6	53,6	17,9		28
colleges	32,0	54,0	14,0		50
RSA universities	13,5	76,9	9,6		52

Missing values = 4

Although 76,9% of South African universities favoured 8), the difference with the United Kingdom institutions was not particularly significant (at the ,1230 level).

5.2.3 Preparation for microteaching lessons X23

Number of UK

responses Options:

- 2 18 8 2)= Students can be introduced to a MT experience with the minimum of preparation.
- 2 38 7 5)= Students are introduced to teaching skills in a general way before using them in a MT lesson.
- 8 34 8 8)= Students are encouraged to observe and identify teaching skills before practising MT.
- 8 24 5 11)= Before giving an MT lesson, students must be introduced to basic teaching skills, observe them in use and evaluate their significance.

Missing values = 1.

The actual preparation of students for sessions of microteaching shows a wide divergence of opinion. The majority favour middle of the road approaches in that 23,3% (28,8%) choose a

general introduction to teaching skills and a further 20,9% (30,7%) felt that some observation and identification of skills was necessary before practising microteaching. At the extremes only 11,0% (17,1%) felt that a minimum of preparation was sufficient and 14,7% (22,7%) that a more thorough introduction involving the evaluation of the significance of the skills as well. Hence, staff are more or less equally divided over what is described as discrimination training prior to microteaching – 54% favour it, 46% are against.

The results from A9A show differences (at the ,0556* level) for different hours of preparation by staff, but these results need to be interpreted with caution as the responses on the questionnaire suggested that some had responded for a week and some for the year. The length of the microteaching session, as shown by the results from A8, indicated differences (at the ,0267 level). More (38,5%) of those using up to one hour chose 11), whereas more (36,8%) of those using up to two hours chose 6) and 48,3% of those using more than two hours chose 5). The results from A11 suggest that fewer staff (7,3%) not using microteaching chose 2), indicating that the majority felt that more than a minimum of preparation was necessary for microteaching (at the ,0328 level).

A13 suggests that where children are used as 'pupils' (with or without peers as pupils) staff (44,0%) favoured 11), the most rigorous preparation, involving the observation and evaluation of skills, whereas those using only peers tended to favour the other alternatives more or less equally with only 16,1% in favour of the more rigorous preparation (at the ,0269 level). Similarly, in A15A, those who used lectures as preparation for microteaching also tended to favour the more rigorous preparation (at the ,0599* level), as did those, in A21, who used reteach (at the ,0356 level) and those, in A22, who arranged more than two lessons for each student (at the ,0526 level). Those using microteaching before the main school practice seemed less in favour of the more rigorous approach (at the ,0276 level), possibly because there was not the time available as, in many cases, the main teaching practice tended to occupy the whole of the second term. Although both staff using audio or live microteaching, as shown by A26C, and staff who had been using microteaching for different numbers of years, as in A35, showed significant differences (at the ,0488* and ,0404* levels respectively), no definite trends can be identified – 41,2% of audio users favoured the most rigorous preparation, 42,3% of 'live' were satisfied if students could merely observe and identify skills. Of those involved for 1-3 years, 53,3% preferred the observation and identification of skills, those who

had operated for 4-5 years tended towards even less preparation, with 46.7% of the 6-9 year group favouring a general introduction and those of 10 or more years indicating a more rigorous approach, but opinions tended to be fairly divided in all categories.

This aspect of microteaching preparation has received a lot of attention in the literature under two distinct, but overlapping, areas of research viz. modelling and discrimination training. "For the student to gain maximum benefit from his first teaching encounter in the microteaching cycle, he needs careful preparation and there are numerous options available" (Wragg 1974: 106) and these options include not only the use of the supervisor, videotapes, live demonstrations and discussion with other students, but also "...trainees value a knowledge of the rationale for, and research into microteaching...their commitment tends to increase" (Hargie & Maidment 1979: ix). Turney identifies three main ways of preparing a student, i.e. by the use of oral explanations and instructions - the 'lecture', by the use of written expositions and directions - the 'handout', and by providing demonstrations of the special teaching skill - the 'demonstration' which may be audio, video, film recordings or a live performance (Turney et al 1973). All of these approaches are embodied in the principle of 'modelling', the first two representing 'symbolic modelling' and the last one involving sound and/or sight i.e. 'perceptual modelling', which can be related to the use of symbolic, verbal or pictorial stimuli in Bandura's social learning theory of imitation (Bandura 1971). The value of modelling was recognised in the early Stanford approaches, i.e. "...an individual demonstrating particular behaviour patterns which the trainee learns through imitation" (Allen & Ryan 1969), and has become "...an important adjunct to the skills approach" (Stones & Morris 1972).

There is evidence of considerable research activity into the use of modelling in microteaching, many researchers examining and assessing its value in different specific situations. Perceptual modelling (i.e. videotape) was found to be more effective than symbolic (Koran et al 1971; McDonald & Allen 1967), whereas in higher order questioning (Berliner 1969; Claus 1969) and in probing questioning (Allen et al 1967) there was found to be no difference, whilst in other questioning skills symbolic was more effective (Cotten et al 1973; Koran et al 1971). So it appears that for certain skills, dependent on verbal interaction, there may be no significance in the type of model used and symbolic is easier and cheaper to introduce (Koran et al 1971). Similarly audio has been shown to be more effective than video, in a counselling

situation, by avoiding less relevant or distracting information (Myrick 1969) and certainly as good as video (Yeany 1977). Perceptual modelling does find support as well, because like all other forms of modelling it does seem to be more effective than none at all - whether it be live or videotape (Santiesteban & Koran 1977; Yeany 1977). Other aspects of the perceptual model in relation to its transfer to a variety of different situations and in relation to the sex of the model, the subject content, the repetition within the episode or the use of 'normal' teaching episodes are also raised as factors to be looked at (Borg et al 1970; McAleese & Unwin 1971). As a result, although it is an important area, "...it has not yet been clearly established which alternative type of modelling approach might be most successful in certain circumstances" (Turney 1973: 11) and "...a combination of both perceptual and symbolic models might be employed to ensure optimum learning" (Turney 1973: 12), in any case "Students clearly feel that they gain from...the videotaped models, the playbacks of their own lessons..." (McIntyre et al 1977: 29).

The perceptual models have been shown to be far more effective if there is active student participation (Bjerstadt 1967; Borg et al 1970; Popham 1966) and if cues are provided to focus attention (Claus 1969). It is this latter aspect that provides the need for discrimination training, i.e. "...salient cues to which the desired behaviour should be attached" (McAleese & Unwin 1971: 16). Some authorities maintain that

"Thirty minutes of discrimination training was shown to be highly effective in changing teaching behaviour while microteaching, i.e. practising teaching twice, reviewing the lesson on video tape and receiving feedback did NOT result in significant overall changes in teaching behaviour."

(Wagner 1973: 303)

The importance of discrimination training is supported by further studies. One of which showed that there was no difference between two groups both of whom had discrimination training with only one group following a microteaching programme (Peterson 1973), and another study in which two groups, again, showed no differences even though one was involved in only peer group participation and the other in a full microteaching programme (Goldthwaite 1969). A study from Stirling provides evidence that different treatments of modelling and/or practice as well as skill definition, although significant for questioning skills, were not significant for variation or clarity of expression (McIntyre et al 1977). Attention is drawn to the greater

effect of the tutor in a supportive role using model tapes and lectures, as opposed to the merely instructive, if less well organized, role in improving the teaching competence of students and that "...few researchers would suggest that tutors should be dispensed with altogether" (Hargie & Maidment 1979: 11). The comparison with a concept-based training, i.e. a theoretical approach, and a practice-based training, i.e. microteaching, suggests that discrimination training, which is more cognitively oriented than the former and more effective at changing behaviour than the latter, "...appears promising and less costly, disruptive and intimidating" (Levinson-Rose & Menges 1981: 420). But it is still acknowledged that actual practice or 'workshops' provide a motivation and the results do not exclude the possibility that practice in addition to discrimination training may prove to be effective (Wagner 1973).

Whilst acknowledging the importance of tutor involvement in preparation as well as tutor feedback, it may well be that the wide range of opinions to Items 2.2 and 2.3 are affected by what is seen as a reasonable staff/student contact time and the need to achieve some degree of compromise between what is ideal and what is practical. This view finds some support when the results of Item 2.4 are analysed.

Table 5.6

Percentage of different institutions' responses for Item 2.3

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	16,9	39,8	26,5	16,9	83
polytechnics	17,9	10,7	39,3	32,1	28
colleges	17,6	21,6	33,3	27,5	51
RSA universities	5,8	36,5	26,9	30,8	52

Missing values = 1

The responses from the different institutions showed noticeable differences (at the ,0568 level), in that, although 36,5% of South African and 39,8% of United Kingdom universities favoured 5), a higher percentage (30,8%) of the former tended towards 11). Polytechnics favoured 8) (39,3%) and 11) (32,1%), whereas 33,3% of colleges favoured 8) with a more even spread over the other choices.

5.2.4 Lectures v handouts on teaching skills X24

Number of UK

responses Option:

- 11 7 11 2)= Handouts on the skills are by themselves sufficient preparation for the students to give MT lessons.
- 9 31 8 5)= Demonstration of teaching skills is necessary to prepare the student to perform them in a MT lesson.
- 7 32 10 8)= Handouts and demonstrations of skills are necessary before they are practised in a MT lesson.
- 9 16 4 11)= Lectures on the rationale of MT skills and demonstrations of the skill are essential before the student uses the skill in a MT lesson.

Missing values = 7.

Again this aspect of discrimination training showed a wide range of opinions, varying from 4,3% (17,7%) who favoured handouts alone, i.e. symbolic modelling, as sufficient preparation, 19,0% (29,4%) who required demonstrations, i.e. perceptual modelling, instead and 20,2% (29,6%) who favoured both symbolic and perceptual. A further 9,8% (17,8%) required lectures on the rationale of the particular microteaching skills together with the use of demonstrations.

A5A showed significant differences (at the ,0314 level) and indicated that 47,4% responses of staff operating microteaching in teams of more than two favoured 11). Similarly for A13, 36,0% of those staff who used children as pupils also favoured the more thorough preparation as indicated by 11), the difference not being a significant (at the ,0851 level). The responses to A17 showed that staff who always used observation schedules tended to favour handouts and demonstrations (38,1%) and lectures as well (42,9%), whereas 47,2% of those not using them tended to favour demonstration only (at the ,0010 level). Those using reteach lessons, in A20, were more likely to be in favour of handouts, demonstrations and even lectures than those who were not using reteach (at the ,0003 level). The responses to A26A showed that of those using colour CCTV 41,1% favoured handouts and demonstrations, whereas those not using colour tended to favour either handouts or demonstrations, the difference being significant (at the ,0100 level). The organisation of microteaching in between teaching practice, as shown by A28C, obviously lends itself to more thorough preparation in that 31,3% favoured handouts and demonstrations with a further 40,6% favouring lectures as well, whereas those not operating microteaching at this time tended to be equally in favour of handouts and/or demonstrations

only (at the ,0007 level).

Table 5.7

Percentage of different institutions' responses for Item 2.4

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	22,8	34,2	26,6	16,5	79
polytechnics	21,4	21,4	35,7	21,4	28
colleges	10,2	30,6	38,8	20,4	49
RSA universities	9,6	5,8	38,5	46,2	52

Missing values = 7

South African universities showed stronger preference for 8) (38,5%) and 11) (46,2%) than did the United Kingdom Institutions (at the ,0004 level), indicating the need for a much fuller commitment to the preparation for microteaching by supervising staff.

5.2.5 Needs of students v needs of 'pupils' X25

Number of UK

responses Option:

- 3 9 6 2)= Only the needs of students should be taken into account when planning MT, whether the pupils benefit does not matter.
- 6 93 14 5)= Students and pupils must both benefit from MT lessons, but the student's need for controlled teaching has priority.
- 7 19 5 8)= Students and pupils can both benefit from MT lessons, but the needs of the pupils come first.
- 1 2 1 11)= Only the needs of the pupils should be taken into account when planning MT lessons, if the pupils benefit so will the students.

Missing values = 8.

The majority 50,9% (63,2%) felt that both students and pupils must benefit from microteaching lessons but that the students need for teaching in a controlled environment has priority. Only 5,5% (11,0%) felt that pupils need not be taken into account, whereas 11,0% (18,4%) thought that although both could benefit the needs of the pupils came first and a very few 1,2% (2,4%) thought that only the pupils' needs should be taken into account when planning microteaching lessons.

It is interesting to note that only three significant differences were identified for any of the different groups examined. The responses to A8 showed differences (at the ,0364* level)

and indicated that the length of the session for microteaching might have some effect, although this is not easily interpreted since those who chose 11) appear to have sessions of more than two hours, whereas those who operated for one hour mainly chose 5) (66,7%) and 8) (29,2%) and 77,8% of those who used two hour sessions chose 5). The responses to A9A suggest that the hours of preparation by staff for microteaching might also have some effect which is not easily interpreted (at the ,0029* level). Staff who used group discussion also showed differences (at the ,0284* level) from those who used individual discussion 77,0% of the former choosing 5) as opposed to 54,7% of the latter.

The learning of pupils has only comparatively recently been considered as a more appropriate measure of the teaching effectiveness of a student as a result of a microteaching programme and there is some evidence to support this (Sakamoto 1981). There are various opinions about the benefits for the pupils from participating in a unique teaching situation with a teacher who is exploring new ideas, skills and techniques (Bloom 1969), "...the time is far from wasted" (Hargie and Maidment 1977) and, since the emphasis on interaction encourages pupil participation and increases arousal, it may improve the performance of secondary pupils but not of primary pupils (Wyckoff 1973). Concern is sometimes expressed about the effects of video recording on the pupils but research that the video creates little or no distractions (Levis et al 1973; Tunney 1970) and does not affect their verbal responses (Waldrop 1970). In fact there have been many attempts to use pupils as part of the feedback evaluation system to students (Allen & Ryan 1969; Bush 1966; Fortune et al 1967; Wragg 1971).

Table 5.8

Percentage of different institutions' responses for Item 2.5

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	13,2	68,4	14,5	3,9	76
polytechnics	3,7	70,4	22,2	3,7	27
colleges	13,5	61,5	25,0		52
RSA universities	8,0	66,0	20,0	6,0	50

Missing values = 10

The differences in responses from the different institutions in the United Kingdom and in South Africa are not significant (at the ,5967* level).

5.2.6 Preparation for microteaching X2

When the responses to the five items were reduced to a four point scale, of first choice of opinion, and crosstabulated against type of institution there were very few combinations that were particularly popular among the 1024 possible. A small cluster was identified among the United Kingdom responses and consisted of the following combinations with the number choosing those combinations in parentheses: 5,5,8,5,5 (3), 5,5,5,5,5 (4), 5,5,8,8,5 (4), 5,5,8,8,8 (4) and 2,2,8,5,5 (3) indicating the freedom for students to choose their own content and plan their own lessons after observing and identifying skills demonstrated to them and taking into account the needs of the pupils as well as those of the students.

The South African responses showed no significant cluster since only one combination was chosen by only three respondents.

5.3 SUPERVISION OF MICROTEACHING

Supervision of students in the teaching situation by tutors has always been seen as an important part of teacher training. However some authors see microteaching supervision as very different from classroom supervision and that there can be a difficulties in transferring from the classroom situation to the microteaching clinic because of the tutor either talking the whole time or thinking that he must use the video recording by playing back the whole recording instead of selecting and focussing on particular aspects (Berliner 1969; McAleese & Unwin 1971). Initially the supervisor's role was seen as twofold: to help the student develop the skill and to help him understand when to apply it (Allen & Ryan 1969). The microteaching supervisor is seen to be more active than the school practice supervisor as he must be involved:

1. in the planning stage, to decide on which skills to focus and in analysing the various teaching tasks in order to arrange the optimum presentation of models, protocols and critique sessions,
2. during the lesson, to complete evaluation schedules and arrange discussion critiques with other students, and
3. after the lesson, in order to interpret the events that have been recorded (Stones & Morris 1972).

In the critique session a three tier system is advocated:

1. ask the student what changes he thought necessary,
2. reward and reinforce those things the student did well, and
3. focus on a few specific teaching skills (Olivero 1970).

The need for specific feedback is stressed (Koran 1969), and for clear and unambiguous communication between tutor and student, in order to avoid the student changing in a way not desired by the tutor (Stewig 1970). At the same time the expert guidance given must allow the students opportunity to find and develop their own teaching styles (Johnson & Knaupp 1970), so that the tutor may "cut the umbilical cord as soon as possible" (Stones & Morris 1972: 92). These general findings are supported by the findings from video therapy, since "The best results were found when the therapist provided clients with specific and structured guidance on

how to modify selected behaviours" (Hung & Rosenthal 1981: 29). In addition, any negative aspects have to be minimised to avoid aversive reactions. Untrained supervisors can be a drawback in helping to modify teaching behaviour and it is often easier to train the student to be capable of his own self evaluation (McAleese & Unwin 1970).

5.3.1 Tutor supervision and feedback X31

Number of UK

responses Options:

0 2 0 2)= If MT is properly structured, tutor supervision and feedback are not necessary.

1 8 3 5)= Once students have been introduced to MT with some tutor support, supervision and feedback from tutors are not necessary.

1 8 6 8)= Tutors need only be available for supervision and feedback, if they are required by particular students in regard to their MT lessons.

20 90 20 11)= Even if MT is properly structured, tutor supervision and feedback are essential.

Missing values = 4.

The majority of opinions 55,2% (79,8%) felt that tutor supervision and feedback were essential. Small minorities expressed other opinions viz. 4,9% (9,2%) who agreed only if tutors are required by particular students, 4,9% (7,3%) only in the introductory stages and 1,2% that no tutor supervision and feedback were necessary.

The results from different subject groups showed some differences (at the ,0500* level), in that Education tutors were less in favour of 11) (only 53,8%) and showed a reasonable support for 5) and 8) (19,2% and 26,9% respectively). Crosstabulation with A11 showed that tutors not using microteaching programmes were also less in favour of 11) (65,0%) with more support for 8) (25,0%). It appears that those directly concerned with the subject teaching and having direct and immediate experience of microteaching are more or less unanimous about the need for tutor support after the lesson has been given.

A number of research studies have shown that the acquisition of skills is not influenced by whether a tutor observes and discusses the lesson or not (Clift et al 1976; Illingworth 1971; McAleese 1976; McKnight 1971), whereas one study shows that detailed remarks are more valuable than just numerical ratings (Beach 1980) and students showed a preference for working with a tutor (Gregory 1971; McIntyre 1971; Olivero 1964; Penrott 1972). In general "the help

given by psychology lecturers and postgraduate students engaged in research on microteaching was more valued than that given by subject specialists" (McIntyre et al 1977: 28). Of the various roles identified by Allen (1968), that of morale booster is emphasised particularly in relation to the use of video (Turney 1970) and in reducing the anxiety of self confrontation (Stroh 1968). Because of this sort of evidence and in spite of the feelings expressed by students and tutors, "One telling point in favour of self evaluation is that it reduces pressure on logistical organisation and requires less personnel for the operation of a microteaching system" (McAleese & Unwin 1971: 15).

Table 5.9

Percentage of different institutions' responses for Item 3.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	2,5	7,5	7,5	82,5	80
polytechnics			17,9	82,1	28
colleges		11,8	7,8	80,4	51
RSA universities		5,8	7,7	86,5	52

Missing values = 4

South African universities showed an even stronger support for 11) than the United Kingdom institutions, but the difference was not significant (at the ,3580* level).

5.3.2 Peer group supervision and feedback X32

Number of UK

responses Options:

- 2 4 2 2)= The student's peer group can provide the necessary supervision and feedback to the student without any preparation.
- 5 55 10 5)= The student's peer group can provide the necessary supervision and feedback once they have been shown what is involved.
- 15 35 12 8)= The student's peer group may be able to supervise the MT lesson but cannot provide the necessary feedback to the student.
- 3 10 2 11)= The student's peer group cannot provide either the supervision or the feedback.

Missing values = 9

Middle of the road policies were favoured in that 33,7% (42,9%) felt that peers could provide supervision and feedback and 21,5% (38,1%) agreed with peer group supervision but not

with peer group feedback. At the extreme ends 6,1% (9,1%) favoured neither peer group supervision nor feedback, whereas 2,5% (4,9%) felt that the peer group could provide then both even without any preparation by the tutor.

The classification into subject groups showed differences (at the ,0052* level) in that Social Studies tutors favoured 8) more (66,7%) and Science tutors favoured 5) more (60,6%). Staff who did not use lectures as preparation for microteaching, as shown by A15A, tended to favour the peer group involvement in microteaching in that 52,4% chose 5) and 19,0% chose 2) (at the ,0098* level) and similarly those who did not use demonstrations to prepare students 68,8% favoured 5) (at the ,0019* level), as shown by the results for A15C. The timing of the discussion of the microteaching appeared to show some differences (at the ,0563* level) in that a higher proportion of those having their discussion immediately after the lesson and those having it sometime later tended to favour 5) (57,6% and 56,3% respectively) whereas those having discussion after playback tended more towards 8). Higher proportions of the small group having discussion later also chose 2) 12,5% and 11) 18,3%. Similarly of those using black and white CCTV, higher proportions i.e. 14,0% favoured both 2) and 11), with 52,8% of those not using black/white CCTV choosing 5) (at the ,0165* level). There tended to be some difference in the responses of those who used a departmental technician for maintenance, as shown by A32A (at the ,0585* level), but only between the choice of 5) and 8).

Some studies have shown that the use of peers can provide better supervision and feedback than the presence of only a tutor (Griffiths 1974), and this approach has been developed on the grounds of assisting conceptualization and internalization of skills, as well as being more supportive, by reducing the effects of self confrontation and tutor criticism where a clash is likely (Gregory & White 1977). Peer group feedback can have other advantages over tutor initiated feedback, such as greater informality, greater variety of perspectives and greater appreciation of each other's problems leading to franker discussions (McIntyre et al 1977).

Table 5.10

Percentage of different institutions' responses for Item 3.2

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	6,4	53,8	30,8	9,0	78
polytechnics	3,7	37,0	51,9	7,4	27
colleges	4,0	36,0	48,0	12,0	51
RSA universities	3,9	27,5	52,9	15,7	52

Missing values = 9

The attitude to peer group supervision by the South African universities was closer to that of the polytechnics, in that 52,9% favoured 11), than it was to the United Kingdom universities, but the difference was not significant (at the ,17301*level).

5.3.3 Value of observation schedules/check lists X33

Number of UK
responses Option:

- 2 6 1 2)= Observation schedules are of no value to students practising MT.
- 8 36 7 5)= Observation schedules are of limited value to students practising MT, but may serve some purpose in supplementing tutor's comments.
- 8 29 9 8)= Observation schedules are useful for other students to use so that they can provide the necessary feedback about the MT lesson.
- 6 40 7 11)= Observation schedules are very valuable for students to assess their teaching ability when looking at their own MT-lesson playback.

Missing values = 4.

Few staff 3,7% (5,5%) thought that observation schedules were of no value, but the remainder were very divided in their opinions of the purposes of such schedules in that 22,1% (31,3%) felt they had a limited value in supplementing tutors' comments, 17,9% (28,2%) thought them to be of use to other students to provide feedback about the lesson and 24,5% (32,5%) thought they were very valuable for students to use themselves to assess their own playback.

Universities tended to be less in favour of observation schedules, 10,1% choosing 2) and 44,3% 5), than either of either Polytechnics or Colleges, who tended to favour 8) and 11) (at the ,0014* level). Increase in the number of academic staff involved tended to favour the use of observation schedules (at the ,0254* level), this finding might well relate to the previous one, as staff in Universities are more likely to operate on their own, or with one other

person, within the subject method course. Similarly where there was more time devoted to microteaching, as shown by A7B, more use was likely to be made of observation schedules by other students (36,8%) and by the student assessing himself (44,7%), whereas of those using less than 7 hours practical time 43,8% and 48,4% chose 5) indicating that schedules were seen to be only of limited value (at the ,0244* level).

Differences in the hours of preparation (A9A) and contact with students (A9B) also showed some differences in responses (at the ,0017* and ,0391* levels respectively) with longer staff contact time for those who chose to use schedules more fully, and progressively longer hours of preparation where schedules are more likely to be used. As shown by the groups formed by A11, staff not using microteaching and those operating with mixed subject groups tended to see observation schedules being used more by the student for self assessment, whereas staff operating with single subject groups saw them having a more limited use (at the ,0402* level). This latter group could be associated with University staff operating microteaching in the individual method courses. As might well be anticipated, of those using observation schedules all the time 63,6% see them as being very valuable for students to use in self assessment, whereas those who sometimes or never use them tend to see them as being of limited value only (at the ,0009* level).

Observation schedules provide a more objective evaluation instrument for the assessment of teaching performance which is in keeping with the microteaching approach. The criteria for such measuring instruments include not only objectivity but also reliability, sensitivity, validity and utility (Gage 1963) and, in the case of instruments to evaluate teaching, they must also be able to describe all the significant aspects of teaching. The measure must be made of specific observable and controllable behaviours and, as far as possible, eliminate any subjective judgement (Schueler & Gold 1966). If they are to be useful and if the user is to receive the minimum of training, they have to be valid, potentially highly reliable and simple. Consequently they are difficult, if not impossible, to construct (McIntyre et al 1977). Following attempts at a global approach like the Stanford Teacher Competence Appraisal Guide (Allen 1969), instruments evaluating specific teaching skills were thought to be more reliable - "It is quite possible that Interaction Analysis combined with microteaching would provide a potent training procedure for helping to develop and control teaching behaviour" (Flanders 1970: 264).

A further complication, that has just been touched on, is the preparation required to use a schedule of this sort effectively, "Data are as precise, accurate and valid as the observer who collects them" (Webb & Brown 1970: 198). Hence the use by students, who have not had adequate preparation, appears to be of questionable value. Evaluation is a problem not easily overcome and a tremendous range of instruments have been produced (Trott 1983), including both global (Brown 1975c; Flanders 1970; Stones & Morris 1972) and specific (Brown 1975c; Perrott 1982; Turney 1975). In spite of the difficulties, such instruments that have been used "...have consistently been operationalised in terms of simple observation procedures rather than in terms of rating scales such as those used at Stanford" (McIntyre et al 1977: 34) and serve a real purpose by helping the student "...focus his attention on relevant aspects of his teaching and make a relatively objective diagnostic assessment of it" (McIntyre et al 1977: 37).

Table 5.11

Percentage of different institutions' responses for Item 3.3

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	10,1	44,3	22,8	22,8	79
polytechnics	3,6	14,3	32,1	50,0	28
colleges		23,1	36,5	40,4	52
RSA universities	4,2	16,7	31,3	47,9	48

Missing values = 8

The support for the use of observation schedules by South African universities was similar to that shown by polytechnics, and to some extent that shown by colleges, in that 47,9% favoured 11), whereas United Kingdom universities (44,3%) favoured 5), indicating that they were of a limited value. The difference was significant (at the ,0010* level).

5.3.4 Assessment X34

Number of UK
responses Options:

- 6 58 33 2)= There should be no formal assessment of students for MT.
- 9 66 7 5)= Only informal assessment by tutors about a student's overall MT success should be given.
- 2 7 1 8)= Tutors should give a formal assessment of a student's success in MT.
- 0 0 0 11)= Tutors should give a formal assessment of MT and it should be incorporated in the final mark for practical teaching.

Missing values = 4.

Responses show that staff were virtually unanimous in agreeing that there should be no formal assessment of a student's microteaching performance; 40,5% (50,5%) felt that an informal assessment could be appropriate.

The responses to A9B show where there is little student contact time there is no support for formal assessment and, even where there is up to 10 hours for microteaching, 45% favour no assessment and of those favouring some formal assessment 71,4% have the longest contact time (at the ,0343* level). Those staff who arrange for discussion on the lesson later are 60% against assessment whereas those who have discussion immediately after the lesson or playback are more in favour of an informal assessment (at the ,0202* level). Those staff who indicated that they used microteaching before Teaching Practice tended to favour an informal assessment (62,6%) whereas of those who did not use microteaching before Teaching practice 59,3% favoured no assessment (at the ,0193 level). Again there is a very significant difference (at the ,0282 level) in responses for those staff using microteaching during Teaching Practice, but in this case the opposite is true in that 66,7% favour no assessment. Apparently a different significance is attached to even an informal assessment of microteaching depending upon how it relates to Teaching Practice. The responses to A29 show that even of those few staff who formally assess microteaching a high proportion (55,5%) do not apparently agree with doing so; whereas 67,4% of those assessing informally do agree with that type of assessment and 73,9% of those not assessing feel that is the best approach (at the ,0000* level). Although there appears to be no relation, 64,8% of those getting maintenance of the equipment by a technician outside the department (i.e. institution, audio-visual or external contractor) favoured informal assessment. Those who were not getting their maintenance that way were more or less

equally divided between no assessment and an informal one (at the ,0173* level).

Although one of the roles of the supervisor is that of assessor (Allen 1968) and although observation schedules are designed to contribute to a more objective assessment of teaching, the purpose of assessment is more to provide a critical and objective feedback than a rating for ranking purposes. As has been mentioned previously one study showed that numerical ratings and detailed remarks from tutors did make a significant difference to the students gains during a microteaching session, but so did detailed remarks only, whereas numerical ratings on their own produced no differences (Beach 1980).

Table 5.12

Percentage of different institutions' responses for Item 3.4

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	43,2	51,9	4,9		81
polytechnics	51,9	40,7	7,4		27
colleges	35,3	56,9	7,8		51
RSA universities	17,6	39,2	19,6	23,5	51

Missing values = 5

South African universities showed a noticeable difference (at the ,0000* level) in their responses as compared with all United Kingdom institutions, in that 23,5% chose 11), 19,6% 8) and only 17,6% 2).

5.3.5 Supervision of microteaching X3

When the responses to the five items were reduced to a four point scale, of first choice of opinions, and crosstabulated against type of institution, the most popular combinations of United Kingdom responses for Items 3.1 to 3.4, with the number who showed those combinations in parentheses, were 11,5,5,5 (14), 11,8,11,5 (12), 11,5,11,2 (12), 11,8,8,5 (10), 11,8,5,5 (10), 11,8,11,2 (8) as well as 11,8,8,2 (5), 11,5,11,5 (5), 11,5,8,5 (5), 11,5,8,2 (5), 11,5,5,2 (5)

indicating that the dominant cluster of opinion over the four items consisted of:

3.1 11) Even if MT is properly structured, tutor supervision and feedback are essential.
(91 responses)

3.2 5) The student's peer group can provide the necessary supervision and feedback once they have been shown what is involved. (46 responses)

or 8) The student's peer group may be able to supervise the MT lesson but cannot provide the necessary feedback to the student. (45 responses)

3.3 5) Observation schedules are of limited value to students practising MT, but may serve some purpose in supplementing tutors' comments. (29 responses)

or 8) Observation schedules are useful for other students to use so that they can provide the necessary feedback about the MT lesson. (25 responses)

or 11) Observation schedules are very valuable for students to assess their teaching ability when looking at their own MT lesson playbacks. (37 responses)

3.4 2) There should be no formal assessment of students for MT. (35 responses)

or 5) Only informal assessment by tutors about a student's overall MT success should be given. (56 responses)

Hence, the general consensus appears to be:

1. tutor supervision and feedback are essential,
2. the peer group can help with the supervision and the feedback they provide may be useful or it may not,
3. observation schedules can be useful for supplementing tutors' comments, for the peer group to use or for the students themselves, and
4. the only form of assessment should be an informal one by tutors.

The tutor commitment is a heavy one, bearing in mind that microteaching operates with small groups of students and that the tutor must plan the whole operation, prepare schedules, supervise and provide feedback on individual students (whether in a group situation or not) and also be prepared to assess individual performances.

Among the patterns of responses from South African universities only two were of any significance viz. 11,8,11,11 (6) and 11,8,8,5 (4). These results reflect the value attached to the use of observation schedules and the need for staff supervision and feedback. The first combination also shows the emphasis by some universities on the formal assessment, which is incorporated in the final mark for practical teaching.

5.4 'RETEACH' LESSONS

The teach-reteach cycle was seen as an important component of the microteaching approach even in its earliest conceptions at Stanford. Of the four main phases viz. model performance, teach-record, play-back critique and reteach, that Turney identifies for the microteaching process, the one that is most likely to be left out when compromise arrangements are made, is the reteach lesson (Turney et al 1973). In many cases where staff have limited time available the tendency is not to give students an opportunity to incorporate suggestions and ideas in a second attempt, but rather to use the time, if available, for exploring further skills.

5.4.1 Teach/reteach interval X41

Number of UK

responses Option:

7 44 12 2)= 'Reteach' lessons are not necessary, it does not matter when they take place.

1 24 2 5)= 'Reteach' lessons can be several days after the 'teach' lesson and still be effective.

3 39 7 8)= 'Reteach' lessons should be planned soon after the 'teach' lesson, but need not be immediately after.

2 10 2 11)= 'Reteach' lessons should be planned immediately after the 'teach' lesson has been viewed and discussed.

Missing values = 10.

The attitude previously expressed is reflected in the results, in that 27% (38,7%) of responses indicated that there was no support for reteach lessons. The remaining responses consisted of 4,7% (16,5%), who felt that they could be effective several days after the 'teach' lesson, 23,9% (30,0%), who were in favour of them soon after but not immediately after and only 6,1% (8,5%), who felt that they should be planned for immediately after.

The responses to A5A, concerned with the number of academic staff operating a microteaching programme, indicated a similar proportion favouring 2) but that with increasing numbers of academic staff involved there was an increasing tendency among the others to favour 11) rather than 5) (at the ,0395* level). The length of the session used for microteaching showed some differences in response (at the ,0330* level), in that those staff operating in 2 hour sessions showed a stronger tendency towards 8) (43,2%) but all groups tended to regard reteach lessons as unnecessary. The number of pupils in the microteaching class indicated some

difference in the reteach interval (at the ,0488* level), those with micro-classes of 5 or less and those with 16 or more were less inclined to see the reteach lessons as unnecessary but those with bigger classes, i.e. 11 and over, showed no support for 11). This could reflect the problems of organising with the larger groups. The use of children or peers, as pupils, also showed differences (at the ,0003* level), those using only peers felt fairly strongly (53,9%) that reteach was unnecessary, whereas those using children were more divided between the other opinions. The responses to A16 showed that there was a significant difference (at the ,0018 level) depending upon whether the lecturer supervised microteaching alone, when there was a stronger feeling that reteach lessons were unnecessary (56,8%), or whether the lecturer had assistance, when 40,0% favoured reteach after several days. Those who used reteach, 'Sometimes' or 'Always', also showed significant differences (at the ,0029 level) as compared with those who 'Never' used reteach lessons. Of those who used reteach lessons, although 40,0% chose 8), 26,0% indicated that they were not necessary by choosing 2), whereas 60,3% of those not using reteach lessons felt that they were unnecessary. It is interesting to note that 51,7% of those using microteaching before Teaching Practice felt that reteach was unnecessary whereas, of those who were not, 28,0% favoured 5) and 8) as well as 2) (at the ,0850* level) - this could be due to the shortage of time at that particular stage of the course.

Table 5.13

Percentage of different institutions' responses for Item 4.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	49,4	18,2	24,7	7,8	77
polytechnics	32,1	10,7	46,4	10,7	28
colleges	33,3	20,8	35,4	10,4	48
RSA universities	25,0	9,6	40,4	25,0	52

Missing values = 10

South African universities were similar in their responses to the polytechnics with 40,4% choosing 8), but a further 25,0% favoured 11) as compared with 10,7% for the polytechnics. United Kingdom universities showed more support for 2). The difference was significant at the ,0190 level.

5.4.2 MT programme - reteach X42

Number of UK

responses Option:

6 32 4 2)= Reteach lessons, where the student teaches the same or similar lesson to a different class, are unnecessary.

8 73 11 5)= Reteach lessons should be optional or at the discretion of the tutor.

2 12 5 8)= All students should be required to reteach certain lessons.

0 2 0 11)= Reteach lessons should take place on every occasion and immediately after teaching and viewing.

Missing values = 8.

The majority of the staff 44,8% (55,4%) felt that reteach lessons should be optional or at the discretion of the tutor and only 19,6% (25,8%) felt they were unnecessary. Some 7,4% (11,7%) thought that all students should reteach certain lessons and only 1,2% that they should take place on every occasion immediately after the initial teaching and viewing.

The responses to A13 showed that where children were used as 'pupils' 30,4% favoured 8) whereas those using peers only 36,4% favoured 2) with the majority in each case supporting optional reteach lessons (at the ,0003* level). A14 shows some differences (at the ,0096* level) suggesting that the small support for 8) and 11) comes from those with small micro-classes, with 55,2% of those with a maximum of 15 pupils indicating that reteach lessons were unnecessary. Those using reteach showed some differences (at the ,0066* level) in their responses as compared with those who were not. Of those who used reteach 72,5% favoured the optional use of reteach, whereas only 49,2% of those who did not use reteach favoured it, 42,9% of these indicating that reteach lessons are unnecessary. The number of microteaching lessons for each student has some effect on the use of reteach (at the ,0485* level), with those committed to fewer lessons tending to be more likely to choose 2) and those who planned for two micro-lessons per student showing a slight support for more than just an optional use. Staff with purpose built facilities tended to be more in favour of the use of reteach than those in improvised facilities (at the ,0402* level), as did those using colour CCTV equipment (at the ,0382* level). The responses to A27 showed that those not recording were less likely to use reteach lessons (58,8%) and that where the lecturer was not involved or where a technician recorded the microlesson there is some support for more than just an optional use (at the ,0344* level). A35 suggested that the number of years of running microteaching programmes might have some significance (at the ,0521* level) but those who have operated 1-3 years are more like those who have operated 6-9 years in

indicating that reteach lessons are unnecessary.

Table 5.14

Percentage of different institutions' responses for Item 4.2					
Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	33,3	53,8	10,3	2,6	78
polytechnics	21,4	60,7	17,9		28
colleges	20,4	67,3	12,2		49
RSA universities	15,7	66,7	9,8	7,8	51
Missing values = 9					

South African universities showed similar responses to the polytechnics and colleges in that the majority (66,7%) favoured 5), whereas United Kingdom universities showed a stronger preference (33,3%) for 2) than the other institutions. The difference was not particularly significant (at the ,1382* level).

5.4.3 Value of reteach lessons X43

Number of UK

responses Option:

2 4 0 2)= The reteach lesson has a negative effect on the acquisition of teaching skills.

2 18 1 5)= Reteach lessons are of no value at all, the time is better spent practising new skills.

16 56 22 8)= Reteach lessons have a limited value only and should be kept to a minimum.

13 12 1 11)= Reteach lessons are very valuable and indispensable for reinforcing teaching skills.

Missing values = 16.

The majority opinion 34,4% (57,7%) was that reteach lessons had a limited value and should be kept to a minimum. Only 7,4% (16,0%) felt that they were very valuable and indispensable for reinforcing teaching skills. At the other end of the scale, only 11,0% (12,8%) felt that they were of no value at all and a small proportion 2,5% (4,9%) felt reteach lessons had a negative effect on the acquisition of skills.

The responses to A4 suggested that where there was a large number of students involved in microteaching, i.e. over 21, there is more support for 11) (27,6%) whereas where there are less students to organise reteach lessons are seen to be of limited value (at the ,0074* level). Similarly A11 suggests that, where staff are not operating microteaching programmes, they

microteaching, i.e. over 21, there is more support for 11) (27,6%) whereas where there are less students to organise reteach lessons are seen to be of limited value (at the ,0074* level). Similarly A11 suggests that, where staff are not operating microteaching programmes, they attach more importance (28,2%) to reteach lessons than those using either mixed or single subject groups (at the ,0208* level). The type of pupils appeared to make some difference (at the ,0075* level) in that those not using children at all were more in favour of 5) (19,5% against 4,3%) and less in favour of 11) (8,5% against 34,8%) than those who did use children, with the majority in each case choosing 8). A21 showed that there was little difference in the majority of those who were not using reteach and those who were, since 65,5% and 69,4% agreed on its limited value, but 24,5% of those who used reteach lessons, 'Sometimes' or 'Always', saw them as very valuable whereas 27,6% of those who 'Never' used them saw them as having no value (at the ,0012* level). A similar variation in opinion was shown by those who used purpose built facilities as opposed to those who used improvised ones (at the ,0213* level).

Table 5.15

Percentage of different institutions' responses for Item 4.3

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	4,1	14,9	63,5	17,6	74
polytechnics	7,7	23,1	46,2	23,1	26
colleges	2,1	8,5	74,5	14,9	47
RSA universities		3,8	59,6	36,5	52

Missing values = 16

South African universities tended to be more in favour of reteach lessons than United Kingdom institutions. A higher proportion (36,5%) chose 11) and no one favoured 2) (at the ,0222* level).

5.4.4 Reteach lessons X4

When the responses to the three items were reduced to a four point scale, of first choice of opinion, and crosstabulated against type of institution, the most popular combinations of United Kingdom responses for Items 4.1 to 4.3 appeared to fall into two separate, but overlapping groups. The first cluster contained the combinations, with the number who showed

them in parentheses, 5,5,8 (21), 2,5,8 (17), 2,2,8 (16) and 2,2,5 (16) which represent an opinion opposed to the use of microteaching consisting of:

4.1 2) 'Reteach' lessons are not necessary, it does not matter when they take place. (49 responses)

or 5) 'Reteach' lessons can be several days after the 'teach' lesson and still be effective. (21 responses)

4.2 2) Reteach lessons...are unnecessary. (32 responses)

or 5) Reteach lessons should be optional or at the discretion of the tutor. (38 responses)

4.3 8) Reteach lessons have a limited value only and should be kept to a minimum. (54 responses)

or 5) Reteach lessons are of no value at all, the time is better spent practising new skills. (16 responses)

It can be seen from the combination of opinions that even this group anticipated reteach being used in a few instances, i.e. at the tutors discretion and not as a fundamental part of the microteaching programme.

The other cluster tended to be dominated by the combination 8,5,8 (26), which appeared to be the bridging group between the previous cluster and the one representing a more positive view of the use of reteach made up of the combinations 8,5,11 (8), 8,8,11 (7), 11,5,8 (4), 11,5,11 (3), 8,8,8 (3) and 11,8,8 (3). This cluster consisted of:

4.1 8) 'Reteach' lessons should be planned soon after the 'teach' lesson, but need not be immediately after. (44 responses)

or 11) 'Reteach' lessons should be planned immediately after the 'teach' lesson has been viewed and discussed. (10 responses)

4.2 5) Reteach lessons should be optional or at the discretion of the tutor. (41 responses)

or 8) All students should be required to reteach certain lessons. (13 responses)

4.3 8) Reteach lessons have a limited value only and should be kept to a minimum. (36 responses)

or 11) Reteach lessons are very valuable and indispensable for reinforcing teaching skills. (18 responses)

As can be seen, even this cluster is not particularly strongly in favour of a reteach cycle but tends to represent it as more of an integral part of the microteaching programme than the previous cluster.

A similar distribution of combinations was noted for the South African responses. The

first cluster consisted of the combinations: 2,2,8 (7), 2,5,8 (4), 5,5,8 (4) and 2,2,5 (1).

The cluster at the other extreme contained: 8,8,11 (7), 8,5,11 (6), 11,5,11 (3) with 11,8,11 (3) and 11,11,11 (3). The bridging group of 5,8,11 had 11 responses.

5.5 IMMEDIATE OBJECTIVES

Although there is no specific mention in any of the items in this section, the personality of the student teacher is a factor which relates to them all. It is difficult to consider the following items in isolation without some consideration being given to the types of student personality involved. However research studies show that there are no easy answers to questions in this area. It is reported that students working individually with tutors were more likely to feel their personalities suited to teaching than those who worked in groups without tutors (McIntyre et al 1977). On the other hand studies of personality (Hargie et al 1978b,c; Leith 1982) have not led to any specific conclusions but as it has been pointed out:

"Teacher trainers who have had experience of student reactions to microteaching, will be well aware of the extreme variations which proliferate. Some students are very enthusiastic, while others display hostility, and a few experience severe bouts of nervousness....Certainly more research will have to be conducted in this sphere before any firm conclusions can be reached."

(Hargie et al 1978c: 43-44)

5.5.1 Objectives X51

Number of UK
responses Option:

- 1 0 2 2)= MT is merely cosmetic, to enable students to see themselves teaching.
- 4 27 11 5)= MT is most valuable as an early introduction to classroom teaching.
- 3 70 6 8)= MT is an introduction to classroom teaching with some opportunity to practise particular teaching skills which have been specified.
- 4 19 3 11)= MT is a deliberate attempt to modify student behaviour in relation to certain prescribed teaching skills.

Missing values = 2.

Very few staff (1,8%) see microteaching as merely cosmetic and, although 16,6% (29,5%) felt it was most valuable as an early introduction to classroom teaching, 42,9% (51,5%) felt it also provided some opportunity for practising particular teaching skills. Only 11,7% (16,0%) regarded microteaching as a deliberate attempt to modify student behaviour in relation to certain prescribed teaching skills.

The responses to A15B suggest that there may be some relation between the use of handouts

in preparation for microteaching and the objectives (at the ,0331* level), since 53,5% of those using handouts favoured 8) whereas 53,1% of those who were not favoured 5), suggesting that the handouts are necessary to provide details of the skills to be practiced. The timing of the discussion could also be relevant (at the ,0013* level), since staff who chose 11) held discussions immediately after the lesson or playback and not later. Similarly those using reteach lessons, sometimes or always, attached more importance to the behaviour modification aspects (at the ,0325* level), as did those using formal and informal methods of assessment (at the ,0477* level). Of those not assessing microteaching, 58,3% regarded it as an early introduction to classroom teaching only. More emphasis on the skills approach implies more emphasis on assessment.

The four aspects included for comparison purposes in this item are dealt with more fully later in individual items 7.1 to 7.4. It is sufficient at this stage to consider whether microteaching has superficial effects or whether the effects are long term. Inherent in the microteaching approach is the point made by Keri Davies requiring " 'carry over' by the student from the micro-situation ...to the macro..." (McIntyre et al 1977: 231).

Table 5.16

Percentage of different institutions' responses for Item 5.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	3,7	30,9	49,4	16,0	81
polytechnics		25,0	57,1	17,9	28
colleges		30,8	53,8	15,4	52
RSA universities		3,8	65,4	30,8	52

Missing values = 2

South African universities showed much stronger support for the long term effects of microteaching in that 65,4% chose 8) and 30,8% 11), whereas 25-30% of United Kingdom institutions chose 5). The difference was at the ,0079* level.

5.5.2 Objectives X52

Number of UK

responses Option:

1 13 8 2)= It is sufficient for the student to receive support and encouragement from MT.

4 44 12 5)= Although receiving support, additional skills could be acquired.

15 46 10 8)= Although initially supportive certain behaviour modifications should be expected.

1 5 2 11)= Certain behaviour modifications must occur as a result of MT.

Missing values = 2.

Again 27,0% (36,9%) felt that microteaching provided an opportunity for acquiring additional skills whereas 23,2% (43,5%) felt that certain behaviour modifications should be expected. Only 3,0% (13,5%) regarded microteaching as only providing support and encouragement and only 3,1% (4,9%) felt that certain behaviour modifications had to occur.

The responses to A7B suggest that the longer time committed to microteaching is related to these objectives (at the ,0096* level) since 61,5% of those using more than 7 hours chose 8), indicating that certain behaviour modifications should be expected, whereas 50% of those using less than 7 hours prefer 5), which emphasises the skills. Similarly longer than 4 hours of staff preparation shows the same effect (at the ,0287* level) as compared with those using less time. Hence it appears that behaviour modification approaches can be related to a greater time commitment both in preparation and actual contact. A similar line of argument can also be extended to include longer micro-lessons, as shown by A12, since 55% of those using over 10 minutes choose 8) as opposed to 53% of those using less than 10 minute lessons who choose 5) (at the ,0337* level). As for the previous item the use of handouts, as shown by A15B, was associated with the tendency for more of a skills and behavioural modification approach (at the ,0578* level). The responses to A17 showed that there was some difference (at the ,0330* level) between those who always used observation schedules, 72,7% chose 8), and those who never used them, 51,3% choose 5). The timing of the discussion immediately after the lesson also related to those who favoured behaviour modification changes, i.e. 59,5% choosing 8), as opposed to 68,8% of those who had their discussion sometime later and chose 5) (at the ,0312* level). The influence of microteaching's relation to Teaching Practice is such that, if it was carried out between Teaching Practices, 62,9% chose 8), whereas, if it was organised during Teaching Practice, only 26,7% choose 8) and 40,0% choose 5), as shown by the responses to A28C

and E (at the ,0577* and ,0458* levels respectively).

The aspects of microteaching which are raised in this item are dealt with in more detail in relation to later items e.g. support and encouragement in relation to the student's confidence in 6.3. It is sufficient to comment at this stage that the support function associated with microteaching is "...to give students a gradual introduction to teaching, thus avoiding the distress sometimes associated with students' first experience of classroom teaching" and hence "one would expect some tendency for students...to become more confident in themselves as teachers" (McIntyre et al 1977: 31).

Table 5.17

Percentage of different institutions' responses for Item 5.2

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	16,0	42,0	35,8	6,2	81
polytechnics	10,7	32,1	57,1		28
colleges	11,5	32,7	50,0	5,8	52
RSA universities	7,7	26,9	38,5	26,9	52

Missing values = 2

South African universities were more strongly in favour of 11) than were the United Kingdom institutions, in that 26,9% felt that behaviour modifications must occur and correspondingly less thought that they should just be expected (at the ,0017 level).

5.5.3 Practice and assessment of specific skills X53

Number of UK

responses Options:

- 1 2 2 2)= It is not possible to identify specific teaching skills such that students can usefully practise them.
- 3 16 7 5)= Although some benefit may be gained by trying to identify specific teaching skills, the whole process of teaching is far too complex for it to be of real value.
- 13 25 13 8)= Although students may practise specific teaching skills, it is impossible for supervisors to assess the use of the skills with any reliability.
- 20 48 7 11)= MT enables students to practise specific teaching skills effectively and also provides an opportunity for supervisors to validly assess the skills.

Missing values = 7.

The great majority (81%) valued microteaching as enabling students to practise specific

teaching skills, but 15,3% (31,3%) thought that it was impossible for staff to assess the use of those skills with any reliability. Whereas a small proportion 0,6% (2,4%) felt that it was impossible to identify specific teaching skills in such a way that students could practise them, 9,8% (15,9%) doubted their value as the teaching process appeared too complex.

The responses to A7B showed that, when staff committed a lot of time to microteaching, they were very much committed to a skills approach, since 68,4% chose 11) and the rest 8), whereas a much wider spectrum of opinion was shown by those using less than 7 hours (at the ,0321* level). However, as shown by the responses to A8, those operating in sessions of up to one hour were more in favour of the skills approach (76% chose 11)), whereas those operating in longer sessions were more of the opinion that it may be difficult for supervisors to assess the skills with any reliability (at the ,0499* level). This latter group are more likely to consist of subject method tutors using microteaching within their own courses, which are timetabled for whole or half days and would provide the time available for long sessions. The responses to A11 suggested that more of those tutors not using microteaching (23,1%) or those operating in single subjects (19,3%) tended to feel that teaching was too complex to be analysed into separate skills (at the ,0266* level). Those who used the reteach lesson tended to be more in favour of a skills approach than those who never used reteach (at the ,0159* level). A28C showed that there was some difference (at the ,0244* level) between those who used microteaching between Teaching Practices and those who did not, 72,7% of the former chose 11) as opposed to 42,2% of the latter, who expressed more concern about the reliability of assessing the skills.

Table 5.18

Percentage of different institutions' responses for Item 5.3

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	2,6	24,4	28,2	44,9	78
polytechnics	3,6	10,7	32,1	53,6	28
colleges	2,0	8,0	40,0	50,0	50
RSA universities		9,8	33,3	56,9	51

Missing values = 8

South African universities were even more in favour of the emphasis on specific skills and that they could be validly assessed by supervisors, but the difference was only at the

,2589* level.

5.5.4 Immediate objectives X5

When the responses to the three items were reduced to a four point scale, of first choice of opinion, and crosstabulated against type of institution, the most popular combinations of United Kingdom responses for Items 5.1 to 5.3, with the number of responses in parentheses, were 8,8,11 (25), 8,8,8 (14), 11,8,11 (12), 8,5,11 (12), 8,5,8 (12), 5,5,8 (10), 5,5,5 (8), 8,5,5 (5) and 5,5,11 (5) indicating that the dominant cluster of opinion over the three items consisted of:

5.1 5) MT is most valuable as an early introduction to classroom teaching. (23 responses)

or 8) MT is an introduction to classroom teaching with some opportunity to practise particular teaching skills which have been specified. (88 responses)

or 11) MT is a deliberate attempt to modify student behaviour in relation to certain prescribed teaching skills. (12 responses)

5.2 5) Although receiving support, additional skills could be acquired. (52 responses)

or 8) Although initially supportive certain behaviour modifications should be expected. (51 responses)

5.3 5) Although some benefit may be gained by trying to identify specific teaching skills, the whole process of teaching is too complex for it to be of real value. (13 responses)

or 8) Although students may practise specific teaching skills, it is impossible for supervisors to assess the use of the skills with any reliability. (36 responses)

or 11) MT enables students to practise specific teaching skills effectively and also provides an opportunity for supervisors to validly assess the skills. (54 responses)

Hence, it appears that microteaching is seen as a valuable means of introducing students to classroom teaching with particular emphasis on the practise of teaching skills, such that behaviour is very likely to be changed and, in spite of the complexities of the teaching situation, tutors may be able to assess the skills. As indicated in Section 5.7, tutors apparently see microteaching as achieving a variety of different objectives and consequently it is important that the statements within the items be seen as a taxonomy rather than straight alternatives.

The main cluster in the South African responses bears some similarities to the United Kingdom ones in that the main combinations are 8,8,11 (9), 8,5,11 (6), 8,5,8 (3) and 8,8,8 (2)

with the addition of 11,11,11 (5), 8,11,11 (4), 11,8,8 (3) and 11,8,11 (2) showing a bias towards the more behavioural modification and skills aspects of microteaching than was evident in the United Kingdom responses.

5.6 EFFECTS OF MICROTEACHING ON STUDENTS

The main advantages identified for microteaching in the early stages of its development include the following:

It is real teaching.

It lessens the complexities.

It focuses on specific tasks.

It has a high degree of control.

It improves the feedback dimension. (Allen & Ryan 1969)

To which can also be added:

Students are phased into teaching.

Pupils are less at risk.

Conflict between student and tutor are reduced by use of self appraisal. (Stones & Morris 1972)

It is not surprising that from these advantages microteaching should be expected to have a number of benefits for students.

5.6.1 Effect of microteaching on the student X61

Number of UK
responses Option:

2 1 0 2)= As a result of MT the student sees teaching as neither intellectually demanding nor as requiring a range of distinctive professional skills.

0 5 10 5)= As a result of MT the student sees teaching as requiring a range of distinctive professional skills but not intellectually demanding.

0 1 3 8)= As a result of MT the student sees teaching as intellectually demanding but not as requiring a range of distinctive professional skills.

16 94 15 11)= As a result of MT the student sees teaching as an intellectually demanding job which requires a range of distinctive professional skills.

Missing values = 13.

The majority of responses, 57,7% (76,7%), supported the view that as a result of microteaching students see teaching as an intellectually demanding job which requires a range of distinctive professional skills. A further 0,6% (2,4%) saw it as intellectually demanding, but not requiring a range of skills, and 4,9% (11,0%) were more in favour of the view that a

student sees teaching as demanding a range of skills, but that it is not intellectually demanding. A few responses 0,6% (1,8%) indicated that as a result of microteaching the student sees teaching as neither intellectually demanding nor requiring a range of distinctive professional skills.

The responses to A20 showed that those who timed their discussion later were unanimous (100%) in choosing 11) whereas of those having discussion after lesson or playback, 84% favoured 11) (at the ,0531* level). Similarly the responses to A30 showed that those staff using assessment of specific skills were also unanimous in choosing 11) yet of those assessing globally 10% chose 5) as did 29.4% of those using specific and global assessments (at the ,0534* level).

It appears that the following statement finds some support:

"It was hoped and intended that the microteaching-centred course would lead students towards perceiving teaching as an intellectually demanding job which requires considerable skill in interpersonal and, in particular, involves the use of a range of distinctive professional skills."

(McIntyre et al 1977: 30)

Table 5.19

Percentage of different institutions' responses for Item 6.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	1,4	13,9	1,4	83,3	72
polytechnics	7,1	3,6	3,6	85,7	28
colleges		14,0	4,0	82,0	50
RSA universities		6,1	6,1	87,8	49

Missing values = 16

This particularly applies to the South African universities which showed an 87,8% response in favour of 11), the difference with the United Kingdom institutions not being significant (at the ,1651* level). It is apparent that there is very little variation in the responses from any of the sub-groups examined.

5.6.2 Relevance of microteaching for students X62

Number of UK

responses Option:

- 1 6 2 2)= MT is not seen as a relevant experience by students because it is a scaled-down, isolated experience in front of a camera.
- 0 1 0 5)= MT is not seen as relevant by students even when it serves as an introduction to a school classroom experience on teaching practice.
- 10 94 24 8)= MT is seen as relevant to students but only when it serves as an introduction to a school experience.
- 6 13 2 11)= MT is seen as very relevant by students and is a good substitute for classroom teaching.

Missing values = 4.

The majority of responses, 57,7% (78,5%), agreed that microteaching was seen as relevant by students only when it served as an introduction to Teaching Practice, 8,0% (12,9%) even saw it as very relevant and a good substitute for classroom teaching. One person (0,6%) thought microteaching was not seen as relevant when used as an introduction to Teaching Practice and 3,7% (5,5%) thought that it was not seen as relevant because of the scaled-down isolated experience in front of a camera.

The responses to A5A indicated that the number of staff involved in the organisation of microteaching may have some effect (at the ,0134* level). Where there were two members of staff there was even greater support (93,3%) for 5), whereas in larger teams there was a greater divergence of opinion between 2) and 11). The responses to A11 showed that of those staff not using microteaching less chose 11) and more chose 2) than did staff using either mixed or single subject groups (at the ,0256* level), showing that more staff who do not use microteaching are more critical of such claims for microteaching. Whereas more, 20%, of those who 'Never' used observation schedules saw microteaching as a substitute for classroom teaching, more, 13,6%, of those who 'Always' used observation schedules felt it was not seen as relevant by students even as an introduction to teaching practice (at the ,0365* level). The use of microteaching in relation to teaching practice produced some differences, in that 20% of those using it during the practice felt that it was not seen as relevant even as an introduction to teaching practice (at the ,0005* level), more, 27,3%, of those who used it in between felt it was a good substitute (at the ,0403* level) and of those using it before the practice 13,2% chose 11) (at the ,0214* level). A32B responses showed that more, 25,5%, of

those staff not using an institutional technician for maintenance felt that it was seen as relevant and a good substitute for the classroom (at the .0369* level).

A number of studies confirm the positive attitude of students towards microteaching (Brown 1976; Bush 1966; Davis 1970; Fortune et al 1967; Gregory 1971; Hargie 1977; Hargie et al 1970; Perrott & Duthie 1970; Perrott et al 1976), and Hargie, in looking at the effectiveness of microteaching according to other criteria is able to conclude "Once again, then it seems that MT is regarded as an effective teacher training technique when the attitude of trainees is used as the criterion" (Hargie & Maidment 1979: 24). A number of studies have shown that the combination of microteaching and teaching practice can be more effective than just teaching practice alone (Shea 1971; Turney 1970). However, some of these findings may "not be scientifically justified" (Brusling 1974: 29), or "vary from the elaborate and rigorous monitoring of carefully devised experiments, to the off-the-cuff, sloppy or tendentious appraisals of the hare-brained or madcap" (Whagg 1982: 42), or may serve only a propaganda purpose where the authors want to draw attention to their own work (Lumsdaine 1970).

Table 5.20

Percentage of different institutions' responses for Item 6.2

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	6,2		75,3	18,5	81
polytechnics	7,4	3,7	85,2	3,7	27
colleges	3,9		86,3	9,8	51
RSA universities	1,9	3,8	67,3	26,9	52

Missing values = 4

South African universities were even more positive about the relevance of microteaching for students, in that 26,9% supported the view that microteaching could be a good substitute for classroom teaching. Among the United Kingdom institutions, 18,5% of the university responses also favoured 11), the difference was at the .0706* level.

5.6.3 Confidence of students X63

Number of UK

responses Option:

0 0 0 2)= MT undermines the confidence that students have in their ability as teachers.

2 2 3 5)= MT undermines the confidence of most students, but some are likely to have their confidence increased.

8 66 39 8)= MT increases the confidence of most students, but some are likely to have their confidence undermined.

7 31 2 11)= Mt increases the confidence of students in their teaching abilities.

Missing values = 3.

The majority of United Kingdom responses supported the opinion that microteaching increases the confidence of students; 19,0% without any reservation and 40,5% (69,3%) feeling that some students might have their confidence undermined. There were no responses to support, 2), the view that microteaching undermined students' confidence but a minority 1,8% (7,9%) felt that most students have their confidence undermined with only a few having it boosted.

The responses to A9B showed that of those staff who had longer contact time with students more (44,4%) felt that it increased their confidence and of those who spent less than 4 hours in contact time 13% were more in favour of 5) (at the ,0307* level). This could indicate that either the confidence of students is increased by the contact with staff i.e. as a morale booster, or that the staff with longer commitment feel that it must help the students; otherwise there is no real purpose for it. A similar result was shown by those organising more micro-lessons per student, 38,5% of those offering more than two lessons choosing 11) (at the ,0312* level). A13 responses showed that of those staff using children as pupils more (45,8%) felt that student confidence was increased without reservations, as opposed to those using peer groups only, of whom 75,5% chose 8) (at the ,0447* level).

Research supported the view that students did develop self confidence as a result of not only being in the microteaching situation, but also because of the use of videotape, since "...although they may have felt nervous and ill at ease, this was not apparent...they appeared cool, competent and self assured" (Stanton 1978: 122) and by sharing the experience of others in a discussion afterwards. There are also reports of other findings about the gain in self confidence (Bloom 1969; Ward 1970; Wood & Hedley 1968).

Table 5.21

Percentage of different institutions' responses for Item 6.3

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities		3,8	76,3	20,0	80
polytechnics		10,7	57,1	32,1	28
colleges		1,9	69,2	28,8	52
RSA universities		2,0	41,2	56,9	51

Missing values = 4

South African universities were even more strongly in support of the view that the students' confidence was increased, in that 56,9% chose 11) and no one felt that it undermined confidence (at the ,0005* level).

5.6.4 Analytic/Prescriptive v Creative/Originality approach X64

Number of UK
responses Option:

- 0 7 3 2)= Because of the analytic prescriptive approach of MT, students underestimate the need for creativity and originality.
- 0 27 11 5)= The analytic prescriptive approach of MT is likely to affect the need for creativity and originality, but not significantly at this pre-service stage.
- 9 52 16 8)= The analytic prescriptive approach of MT does not affect the students' estimation of the need for creativity and originality.
- 3 25 4 11)= MT does not have an analytic prescriptive approach, it allows and encourages students to be creative and original in their approach to teaching.

Missing values = 6.

The majority of responses supported the view that creativity and originality were as much a part of microteaching as the analytic prescriptive approach. Of the total responses, 31,9% (47,2%) acknowledged the latter but felt it did not effect the students' estimation of the need for the former and a further 15,3% (19,7%) felt that microteaching did not have an analytic prescriptive approach but encouraged creativity and originality in teaching. At the other end of the scale 16,6% (25,1%) thought that the analytic approach was likely to affect the need for creativity but not significantly at the pre-service stage and only 4,3% (4,3%) felt that students do underestimate the need for creativity in teaching because of the analytic approach

of microteaching.

The responses from the different subject groups showed some differences (at the ,0440* level), in that more, 20,0%, of the Language group chose 2), more, 40,0%, of the Science group chose 5), more, 60,0%, of the Social Studies and Miscellaneous groups chose 8). The Education group appeared to be typical of the total staff in the way their choices were distributed. A39 showed that those staff who did not have their faults repaired promptly were almost unanimous (90,9%) in their choice of 8) (at the ,0437* level).

Although the following view has been expressed:

"...there was some fear lest, as a result of the analytic prescriptive approach, students might come to underestimate the need for creativity and originality in teaching".

(McIntyre et al 1977: 31)

which appears in keeping with an emphasis on the acquisition of skills on a behavioural modification approach. The ways in which microteaching is interpreted by staff who organise the programmes suggests that the need for creativity and originality is not a matter for concern, although, as it has been indicated, in particular subject areas there may be some concern that not enough is being achieved.

Table 5.22

Percentage of different institutions' responses for Item 6.4

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	6,4	26,9	46,2	20,5	78
polytechnics	14,3	17,9	42,9	25,0	28
colleges	2,0	23,5	56,9	17,6	51
RSA universities		19,6	45,1	35,3	51

Missing values = 7

South African universities tended to be more in favour of 11) than the United Kingdom institutions, but the difference was only at the ,0866* level.

5.6.5 Effects of microteaching on students X6

When the responses to the four items were reduced to a four point scale, of first choice of opinion, and crosstabulated against type of institution, the most popular combinations of United Kingdom responses for Items 6.1 to 6.4 were , with the number choosing those combinations in parentheses, 11,8,8,8 (39), 11,8,8,5 (20), 11,8,8,11 (12), 11,8,11,8 (11), 11,8,11,11 (7), 11,11,8,8 (6) as well as 5,8,8,8 (5), 5,8,8,5 (4), 5,8,8,11 (2) and 11,8,11,5 (3), 11,11,8,11 (2), 11,11,11,8 (3), 11,11,11,11 (3) indicating that the dominant cluster of opinion over the Items 6.1 to 6.4 consisted of the following opinions arranged in order of priority as indicated by the number of responses:

6.1 11) As a result of MT the student sees teaching as an intellectually demanding job which requires a range of distinctive professional skills. (106 responses)

or 5) As a result of MT the student sees teaching as requiring a range of distinctive professional skills but not intellectually demanding. (11 responses)

6.2 8) MT is seen as relevant to students but only when it serves as an introduction to a school experience. (103 responses)

or 11) MT is seen as very relevant by students and is a good substitute for classroom teaching. (14 responses)

6.3 8) MT increases the confidence of most students, but some are likely to have their confidence undermined. (90 responses)

or 11) MT increases the confidence of students in their teaching abilities. (27 responses)

6.4 5) The analytic prescriptive approach of MT is likely to affect the need for creativity and originality, but not significantly at this pre-service stage. (27 responses)

or 8) The analytic prescriptive approach of MT does not affect the students' estimation of the need for creativity and originality. (64 responses)

or 11) MT does not have an analytic prescriptive approach, it allows and encourages students to be creative and original in their approach to teaching. (26 responses)

Hence, the effect of microteaching on students appears to be seen by United Kingdom staff as a view of teaching definitely requiring a range of distinctive professional skills and tending to be intellectually demanding. It is seen as relevant for students particularly as an introduction to school experience. On the whole it increases their confidence and, to varying degrees, is not likely to affect the students' estimation of the need for creativity and

originality. As can be seen from the above numbers involved in the responses, this seems a very positive position for staff to take in relation to the variety of approaches to microteaching that are being adopted.

The South African responses showed a similar pattern, the main combinations being: 11,8,8,8 (6), 11,8,8,5 (4), 11,8,8,11 (3), 11,8,11,8 (6) and 11,8,11,11 (6), with a bias towards 11,8,11,5 (3), 11,11,11,8 (4) and 11,11,11,11 (5) indicating that there was a greater tendency towards the top of the scales, with the possible exception of 6.4. The South African responses were even more positive in their attitude towards microteaching.

5.7 PHILOSOPHICAL FACTORS

The items in this section are classified under the heading of Philosophical Factors, because, although they relate to the objectives in a previous section, they attempt to examine more closely the underlying principles and assumptions that could be basic to the implementation of a microteaching programme. There are many who still maintain the traditional view that teachers are born and not made. An opinion which reflects the understanding of teaching as an Art (Higget 1951), as opposed to the more modern approach which looks for a scientific basis to teaching (Chanan 1973; Gage 1972; Rogers 1969; Skinner 1968). The identification of teaching skills and, hence, the implementation of a skills approach to teacher training, whether or not it involves deliberate behavioural modification, is part of the scientific approach. In its most specific interpretation, microteaching is an example of a systems approach to teacher training, but it is evident that it can be and is used in a variety of other, more traditional, ways, which may be seen as either a 'cosmetic' experience or, merely, as a more controlled introduction to teaching in schools.

The responses to Items 7.1 to 7.4, that follow, can be usefully compared to the responses to Item 5.1. The following table shows the percentage United Kingdom responses to the four 'objectives' that composed the four opinions in Item 5.1, together with the percentage responses for the same aspects as recorded for Items 7.1 to 7.4:

	Responses to 5.1	Responses to:
Cosmetic	1,8%	7.1 = 63.8%
TP preparation	29,5%	7.2 = 84.7%
Skills	51.5%	7.3 = 94.4%
Behaviour modification	16,0%	7.4 = 82,1%

It is noted that the percentage responses are in the same order even though the one reflects a choice between the different aspects and the other shows the responses to the aspects separately. Overall a substantial majority are in support of all of them as important aspects of microteaching and rate them in the order of 1. skills training, 2. preparation for teaching practice, 3. behaviour modification, 4. the cosmetic effect. Hence, microteaching is seen as a

means of training students in specific skills as an introduction to the school classroom by using behaviour modification techniques, with the initial exposure to video being of value as a cosmetic experience.

The South African responses to the same items are shown below:

	Responses to 5.1	Responses to:
Cosmetic	0,0%	7.1 = 80,4%
TP preparation	2,1%	7.2 = 97,9%
Skills	70,2%	7.3 = 97,8%
Behaviour modification	27,7%	7.4 = 95,7%

Although the results do not show the same consistency as the United Kingdom results, it can be seen that all are rated higher in the responses to Item 7.1 to 7.4 but where there is a choice, as in Item 5.1, behavioural modification and the skills approach receive even greater support. Hence, the South African attitude towards microteaching appears to be even more positive than the United Kingdom one.

5.7.1 'Cosmetic' effect of microteaching X71

Number of UK
responses Options:

- 0 1 1 2)= There is no value in the 'cosmetic' aspect of MT, students do not become aware of how others see them, the experience can damage their teaching.
- 0 1 1 5)= There is little value in the 'cosmetic' experience of MT, students do not benefit particularly from seeing and hearing themselves.
- 4 31 10 8)= There is some 'cosmetic' value in MT, it is inevitable that students will benefit from seeing and hearing themselves as others see and hear them.
- 7 85 12 11)= One of the values of MT is 'cosmetic', since students have an opportunity to see and hear themselves as others see and hear them, and benefit from it.

Missing values = 10.

The great majority of responses indicated that there was value in a purely 'cosmetic' experience in microteaching; 52,1% (68,8%) felt this was one of the direct benefits of microteaching, whereas a further 19,0% (27,6%) thought that it was inevitable that students would benefit from seeing and hearing themselves.

There were no significant differences at the ,01 level for any of the aspects identified by the Organisation questionnaire, this gives some indication about the universality of the importance attached to the cosmetic value of microteaching.

These views are supported by those of Perrott who in the self instructional microteaching approach comments that students, when first exposed to video recording of themselves, tend to focus on the cosmetics of their performance e.g. physical appearance, clothes, voice quality (Perrott 1982: 25) and by McAleese and Unwin when they write "...trainees seeing and hearing themselves for the first time on a television screen are more concerned with personal attributes than with teaching techniques" (McAleese & Unwin 1971: 15) and who qualify this by "...in the beginning, supervisors encounter supercritical trainees and often have to temper good advice with morale boosting" (McAleese & Unwin 1971: 14).

Table 5.23

Percentage of different institutions' responses for Item 7.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities		1,4	27,0	71,6	74
polytechnics	3,6	3,6	35,7	57,1	28
colleges	2,0		29,4	68,6	51
RSA universities	2,0	2,0	19,6	76,5	51

Missing values = 11

South African universities are even more in support of the cosmetic value, as 76,5% chose 11), the difference with the United Kingdom responses was not significant (at the ,6668* level).

5.7.2 Preparation for school teaching practice X72

Number of UK
responses Options:

- 0 3 2 2)= MT is an unnecessary preparation for classroom teaching, school teaching practice is of more value without it.
- 2 12 5 5)= MT has little value as a preparation for teaching practice in schools, it need not relate to the periods of school teaching practice at all.
- 19 112 7 8)= MT has value as a preparation for classroom teaching and should precede the school teaching.
- 0 1 2 11)= MT is most valuable as a preparation for classroom teaching and could replace the school teaching practice period.

Missing values = 0.

The great majority of responses, 68,7% (84,7%), supported the view that microteaching was valuable as a preparation for classroom teaching and should precede the school teaching practice. Only 0,6% (1,8%) thought it was valuable enough to replace teaching practice altogether, 7,4% (11,7%) felt that it was of little value as a preparation for teaching practice and need not relate to the teaching practice periods at all, and 1,8% felt that teaching practice was of more value without it.

The responses to A11 showed some differences (at the ,0001* level) in that a higher proportion, 29,3%, of those not using microteaching chose 5), resulting in a lower proportion, 68,4%, who chose 8), the ones who rated the value highest, i.e. 96,6% for 8), as a preparation for teaching practice and preceding it were those where single subjects were taught, i.e. those more likely to be involved as method tutors. A21 shows that those using reteach lessons attach less importance to the preparation of microteaching for teaching practice (at the ,0427* level). Of those using microteaching before teaching practice and of those who did not use it during teaching practice 95,7% and 93,5% chose 8) (at the ,0098* and ,0466* levels respectively) as compared with the opposite groups in each case.

In the early stages of the introduction of microteaching in the United Kingdom, it was seen as a possible alternative to teaching practice because of the many problems involved at that time with placing continually increasing numbers of student teachers in suitable schools. In any case, "One of the most controversial and yet most widely accepted areas in Teacher Education has been the practical teaching component" (Hargie & Maidment 1977: 15). Some of the problems associated with it are:

1. individual differences between supervisors with respect to observation and the feedback given,
2. supervisors may see untypical lessons,
3. many factors such as time of day, academic level, subject matter, type of school can affect a student's performance (Collier 1959),
4. students are exposed to both good and bad teaching (McKnight 1980),
5. there is a large element of chance (Dent 1977),
6. it is difficult to assess objectively, and
7. very expensive to operate properly.

In spite of these difficulties, of the alternatives that have been proposed and experimented with such as teacher assessors (Emmett 1965), use of a 'practice school' with or without team teaching (Coltham 1966; Price 1964) and 'group practice' (Kirwin & Shaw 1966), microteaching was the one that appeared to offer the greatest objectivity and versatility at a reasonable price. Few educationalists now regard a microteaching clinic as a replacement for school teaching practice (Hargie & Maidment 1977).

The positive response of students towards microteaching reported from Stirling is qualified by the comment that these comments came from students before their first teaching practice and that after that "the response was generally lukewarm" (McIntyre et al 1977: 32), because the relevance of microteaching to a normal classroom was limited by the absence of discipline problems. They comment further that "...a microteaching programme which is satisfactory to students does not necessarily guarantee that the relationships between microteaching and school practice are equally satisfactory" (McIntyre et al 1977: 32). This is a fundamental part of teacher training that needs more attention as it seems only reasonable that "...students who have learned to describe and evaluate their teaching according to various explicit criteria in the microteaching context should be helped and encouraged to use the same criteria, among others, in their school teaching practice" (McIntyre et al 1977: 32). White investigated the relation between the more objective supervisory approach of microteaching to the observation and evaluation by tutors in a school teaching practice. Although tutors showed more agreement on their systematic observations than they would using conventional procedures "...its use is far from sufficient to prevent the advice a student receives from being largely dependent on the idiosyncracies of his supervisor" (McIntyre et al 1977: 69). Therefore,

although the expression of opinion is fairly strong that microteaching is of value as a preparation for school practice, there is little evidence of any transfer of the microteaching experience into the school either by students or staff. In spite of this, UCET, in its identification of a new policy for PGCE training in England and Wales, saw the development of skills and personal qualities by microteaching as a preparation for the time the student spent in a school and that there was "...a need for training institutions to engage in much greater experimentation in the use of microteaching exercises in which the students must act individually on the basis of their own analyses and judgements" (Hirst 1980: 14).

Table 5.24

Percentage of different institutions' responses for Item 7.2

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	1,2	14,5	84,3		83
polytechnics	3,6	14,3	82,1		28
colleges	1,9	5,8	86,5	5,8	52
<u>RSA universities</u>		<u>1,9</u>	<u>94,2</u>	<u>3,8</u>	<u>52</u>

Missing values = 0

South African universities gave even greater support to the value of microteaching as preparation for classroom teaching, but the difference was not particularly significant (at the ,0946* level).

5.7.3 Skills approach to microteaching X73

Number of UK

responses Options:

- 0 3 1 2)= The practising of specific teaching skills in MT is harmful as it interferes with the students' own personal approach to teaching.
- 2 2 0 5)= The practising of specific teaching skills in MT is a waste of time, as there is no transfer to the classroom teaching situation.
- 16 74 10 6)= MT has some value as an opportunity for students to practise specific teaching skills, it is possible that they may be learnt for use later in the classroom.
- 19 38 3 11)= MT is most valuable as an opportunity for students to practise and learn specific teaching skills in a controlled environment.

Missing values = 1.

The majority of responses favoured the skills approach to microteaching, in that 45,4% (61,3%) chose 8 viz. that the practising of specific teaching skills was of some value with transfer to the classroom also taking place, and a further 23,3% (33,1%) chose 11, viz. that the skills were not only practised but learnt in the controlled environment of the microteaching. At the other end of the scale, a small minority, 1,8% (2,4%), saw the practising of specific skills as interfering with the student's own personal approach and consequently harmful. Another small group, 1,2% (2,4%), thought that the practising of specific skills was a waste of time as there was no transfer of the skills to the classroom.

The responses to A7B showed that staff devoting more practical hours to microteaching tended to favour 11 rather than 8, the difference being significant at the ,0320* level. Similarly for those staff spending more time in preparation for microteaching, as shown by A9A, and for those staff spending longer student contact hours for microteaching, as shown by A9B, there was a greater tendency to favour 11 (at the ,0425* and ,0216* levels respectively). The responses to A13 showed that when children were used as 'pupils' 61,5% of staff favoured 11, whereas those using peers only 43,4% favoured 8 (at the ,0501* level). Of those who 'Always' used observation schedules 63,6% chose 11 as opposed to 28-33% of those who 'Never' or 'Sometimes' used them, the difference being at the ,0650* level. Where more microlessons were given by each student there was a tendency to favour 11 rather than 8 (at the ,0233* level). Hence, those staff who feel more strongly in favour of a skills approach devote more time to microteaching, in every way, including preparation time, contact time, longer sessions and more micro lessons. They also are more likely to use children and observation schedules.

The responses to A28E showed that almost all, 93.3%, of the few staff who used microteaching during school teaching practice favoured it, as opposed to 55.7% of those who did not use microteaching during teaching practice (at the .0067* level).

The value of specific teaching skills is seen in the microcriteria approach to teacher training, i.e. "rather than seek criteria for the over-all effectiveness of teachers in the many various facets of their roles, we may have more success with criteria of effectiveness in small, specifically defined aspects of the role" (Gage 1972: 95). The skills approach established a move from the more conventional 'Descriptor Approach' to a potentially more useful 'Improvement Active Approach' in the evaluation of a student's teaching performance (Gage 1972). This proposal by Gage seemed to find its practical realisation in the early microteaching programmes, as "Perhaps the most fundamental idea of microteaching is that students should focus their attention upon specific aspects of teaching and should plan, practise and analyse these aspects of their teaching in terms of clearly conceptualized criteria" (McIntyre et al 1977: 33). The emphasis on the skills directs students' attention to particular limited aspects of teaching and makes explicit the criteria by which they plan and evaluate these aspects "in order to minimise the use of vague and idiosyncratic criteria" (McIntyre et al 1977: 33). In the early stages as many as fourteen teaching skills were identified (Allen & Ryan 1969), a proliferation which led to the 'second generation', which "does not so much build upon the first phase efforts as it attempts to place them into a theoretical framework relating them to one another and to a central model of the teaching process" (McKnight 1980: 224). This led to a grouping of skills and a corresponding reduction in the number, but even so the Technical Skills Development Programme of the University of Sydney identified nine (Turney et al 1973, 1975), and hence there was a need for each institution to refine and develop its own sets of skills (Cooper 1967). There have been numerous studies into the variety of skills, for instance the highly rated use of questioning, (Chawley & Krockover 1979; Esquivel et al 1978; Kelsey 1977; Rice 1977; Riley 1978) and yet "there is no conclusive evidence that higher order questioning leads to enhanced pupil learning" (Wragg 1982: 47). In spite of the fact that the literature is full of lists and details of recommended skills (Allen & Ryan 1969; Brown 1975; Galitz 1982; Galitz et al 1984; Groenewald 1984; Penrott 1977, 1982; Turney et al 1973; Wragg 1974), it seems that there is some truth in the view that:

"Unfortunately, the best available knowledge about teaching is at present such that few skills can be specified with any great confidence. There are sufficient grounds, on the basis of empirical research on classroom teaching, of psychological theory, and of the consensus opinions of experienced teachers, for many criteria to be suggested as probably appropriate in situations of given kinds, but insufficient grounds for such criteria to be authoritatively prescribed. Given these circumstances, one can only treat specified patterns of teaching behaviour as hypothetical skills of teaching."

(McIntyre et al 1977: 33)

It is not surprising that most of the criticisms of microteaching have been related to the conceptual basis for the skills approach (Beattie 1972; Clift et al 1976; Smith 1969; Spelman & St. John Brooks 1978).

Reports from Stirling suggest that the student's view of the skills approach is not altogether positive, since, although second year students all found the skills 'helpful' or 'very helpful', 75% of the 128 third year students indicated that they had not been able to concentrate on the skill and gave the following as reasons:

1. Could not distinguish the particular skill from the other aspects of the lesson, (31 responses)
2. Had to give too much attention to subject matter, (23 responses)
3. Not convinced of value of focusing attention on skill, (22 responses)
4. Tended to get carried away in discussion with pupils, (20 responses)
5. Did not have a sufficiently clear idea of the skill, (15 responses)
6. Tended to be distracted by feeling of being observed, (7 responses)

The value of the skills was seen in planning the lesson and observing it later, they appeared to act as a focal point. The need for an appropriate research paradigm for the technical skills of teaching is called for (McKnight 1980) and the identification of p-type, i.e. phenomenological, and a-type, i.e. analytic, skills (Brown 1975c: 50) and their application by Maarschalk leading to the blending of the overall impression and the objective recording as a didactical and meaningful synthesis or image of the lesson (Maarschalk 1978) may be a step in the right direction. Certainly it implies a compromise between the analytical skills approach

and the conventional phenomenological approach to teacher training and its assessment.

In spite of the occasional study that attempts to show gains in the learning of pupils as teachers improve in performance of particular skills (Madike 1980; Sakamoto 1981), it still appears that skills "...are not basic or essential because there are no data to show that a teacher who uses them produces more effective learning" (McDonald 1973: 55) and, hence, McDonald's criticism of microteaching in favour of behaviour modification approaches based on reinforcement and modelling.

Table 5.25

Percentage of different institutions' responses for Item 7.3

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	2,4	3,7	65,9	28,0	82
polytechnics	3,6	3,6	57,1	35,7	28
colleges	1,9		57,7	40,4	52
RSA universities		1,9	38,5	59,6	52

Missing values = 1

South African universities were even more in favour of a skills approach, as 59,6% chose 11), the difference in responses being at the ,0665* level.

5.7.4 Behaviour modification approach to microteaching X74

Number of UK

responses Option:

0 1 0 2)= MT. as a means of achieving behaviour modification is harmful and dangerous to the professional preparation of a student teacher.

1 8 4 5)= MT has little value as a means of behaviour modification since no matter how much attention is given to it students will not significantly change their teaching style.

24 99 11 8)= MT has some value as a means of behaviour modification by removing undesirable habits that might interfere with the effectiveness of a student's teaching style.

5 2 1 11)= MT is most valuable as a systematic and planned approach to behaviour modification by which students' teaching styles are changed to follow a particular model.

Missing values = 5.

The majority of responses, 60,7% (82,1%), saw the behavioural modification aspect of microteaching as useful in removing undesirable habits that might interfere with the

effectiveness of a student's style of teaching and only 1,8% (5,5%) favoured the more systematic planned approach by which student's styles were changed to conform to a particular model. Only one person (0,6%) thought that the behavioural modification aspect was harmful and 4,9% (6,6%) that it had little value as students would resist any change in their teaching style.

Although A20 and A33 appeared to show some differences (at the ,0525* and ,0546* levels respectively) an examination of the crosstabulations showed no meaningful differences, so it appears that there were no groups from the Organisation data that showed differences with respect to attitudes towards behavioural aspects of microteaching – a consistently high proportion of all groups and sub-groups choosing 8).

These findings are interesting bearing in mind that

"At the moment there is a great ignorance of the behavioural approach amongst college lecturers in Britain, and much prejudice against even the consideration of its application to teaching."

(Merrett & Wheldall 1982: 74)

The literature records a continuing and developing debate between those in favour of a behavioural modification emphasis and the more conventional or personal approach to teacher training. The latter group is categorised by those who refer to the 'bogy' of standardized products;

"We do not look for the production of teachers cast in the same mould but the production of teachers who will make effective use of certain fundamentals of a repertoire of specific skills expressed in personal and individual ways."

(Stones & Morris 1972: 91)

The strongest exponent of behaviour modification in teacher education is McDonald, who from the very beginning attacked a microteaching approach that does not acknowledge its debt to behavioural modification:

"Much of what has been written about microteaching is promotional and often misleading. The claims made for its effectiveness have little substance in fact. More disappointing is the fact that the original conception and rationale for microteaching has been lost sight of, a point significant in the context of a discussion of behaviour modification in teacher education. Originally

microteaching was devised as a procedure for facilitating behaviour control. Further, it was used as a way of creating a more effective experimental paradigm which for the first time made it possible to use sophisticated experimental designs in learning studies. The purpose of these learning studies was to assess the relative effectiveness of modelling and reinforcement variables in facilitating the acquisition of teaching performance."

(McDonald 1973: 71)

"...many of the people who began to use it apparently saw it as a controlled type of practice. Many users of microteaching apparently did not see the relevance of behaviour modification principles used in the experimentation which was being done."

(McDonald 1973: 72)

"Microteaching remains an unstudied technique. The literature that purports to be research in it is deplorable."

(McDonald 1973: 72)

"The most undesirable consequence of the promotion of microteaching was that the role of behaviour modification in training was obscured....There is very little else about microteaching as a methodological device that is worth studying. What is worth investigating is the applications of behaviour modification principles that can be made when microteaching is used."

(McDonald 1973: 73)

McIntyre, whilst acknowledging behavioural modification in the early Stanford programmes, in which it provided a rationale for the learning of students, and in the Stirling model, where it provided the rationale for the particular skill of reinforcement, feels that

"...few users of microteaching would justify microteaching techniques in this way...still fewer programmes could be seen as conforming to the kinds of principles of practice which behaviour modification theory would imply."

(McIntyre et al 1977: 226)

Whereas microteaching can be an effective medium for behavioural change, behavioural modification "presupposes a structural change in the individual's field of perception and his structures of values and beliefs" (Bierschenk 1974: 14).

Cooper attaches a different kind of importance to the behavioural aspect of microteaching when he writes that "...microteaching probably warmed up the teacher education audience for the coming of Competency Based Teacher Education" (Cooper 1980: 146), which he describes as a behavioural, accountable, criterion referenced approach to teacher education by which competency acquisition is facilitated and demonstrated and in which 'performance in' is more important than 'knowledge of' (Cooper 1980). "Microteaching employs a systems approach on a small scale, while CBTE programmes require a systems approach to manage and monitor the interactions of many more variables." (Cooper 1980: 144-5)

But in the same way that Perlberg looked for a compromise between the affective and cognitive models of Video Self Confrontation, there are "...three different views of behaviour change: the self theory or experiential view, learning theory or a behaviour modification view and attribution theory" (Fuller & Manning 1973: 505) and these three views are not antithetical but are complementary "...each with a different contribution to make to current cyclopean conceptualizations about feedback" (Fuller & Manning 1973: 505). McIntyre looks for a similar compromise between theory based concepts related to a cognitive interpretation of microteaching and practically necessary "conceptually 'simple' cognitive structures used by teachers in classrooms" (McIntyre et al 1977: 262) leading to an explanatory model of microteaching.

Table 5.26

Percentage of different institutions' responses for Item 7.4

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	1,3	8,9	88,6	1,3	79
polytechnics		14,3	78,6	7,1	28
colleges		5,9	82,4	11,8	51
RSA universities	1,9	1,9	75,0	21,2	52

Missing values = 5

South African universities were even more strongly in favour of the behavioural modification approach, the difference being at the ,0178* level.

5.7.5 Philosophical factors X7

When the responses to the four items were reduced to a four point scale, of first choice of opinion, and crosstabulated against type of institution, the most popular combinations of United Kingdom responses for Items 7.1 to 7.4 were, with the number indicating the combination in parentheses, 8,8,8,8 (25), 11,8,8,8 (42) and 11,8,11,8 (34) and showed that the dominant cluster of opinion over the four items, in the order of importance, consisted of:

7.3 8) MT has some value as an opportunity for students to practise specific teaching skills, it is possible that they may be learnt for use later in the classroom.

or 11) MT is most valuable as an opportunity for students to practise and learn specific teaching skills in a controlled environment.

7.2 8) MT has value as a preparation for classroom teaching and should precede the school teaching.

7.4 8) MT has some value as a means of behaviour modification by removing undesirable habits that might interfere with the effectiveness of a student's teaching style.

7.1 11) One of the values of MT is 'cosmetic', since students have an opportunity to see and hear themselves as others see and hear them, and benefit from it.

or 8) There is some 'cosmetic' value in MT, it is inevitable that students will benefit from seeing and hearing themselves as others see and hear them.

On inspection there appeared to be no noticeable differences between the different types of United Kingdom institution. The South African responses indicated a similar pattern of combinations viz. 8,8,8,8 (8), 11,8,8,8 (10) and 11,8,11,8 (17) with the addition of 11,8,11,11 (7) and 8,8,11,8 (2).

5.8 RELATION OF MICROTEACHING TO OTHER COURSES

The place of microteaching in the total teacher training course is an aspect that also affects its use. In the early Stanford models it was developed as an experimental approach in Summer schools. Perrott introduced microteaching to the, then new, University of Stirling as a method of teacher training around which a whole course was structured. In most other teacher training courses in other institutions it tends to be a method of teacher training that has been incorporated into the overall theoretical and practical framework as a component of an existing course, among other well-established courses with their own status, structure and assessment procedures which have evolved over time. The introduction of a microteaching approach finds some support in the argument that "It is a well-established fact of the psychology of learning that the greater the similarity (i.e. between the practice and the goal situation) is, the easier transfer between the situations takes place" (Brusling 1974: 25). Microteaching as a simulation of the classroom is closer to the real thing than a lecture on how to teach. In attempting to answer the question how the theoretical knowledge of pedagogy can be rendered more effective in controlling the behaviour of teachers both in the classroom and in their pre- and post-classroom activities (Smith 1971), it is suggested that models be used not as exemplars for imitation but as protocol materials for analysis. In this way the conventional training approach is turned about so that the principles of the psychological, sociological and philosophical studies as well as those of pedagogy are brought to the analysis of protocol materials, and not the other way around (Smith 1969).

5.8.1 Relation to psychological theory X81

Number of UK

responses Option:

- 2 8 0 2)= There is no relationship between the skills of teaching and psychological theory.
- 1 20 2 5)= MT does not establish any relationship between the skills of teaching and psychological theory.
- 14 44 17 9)= MT establishes a vague relationship between the skills of teaching and psychological theory.
- 16 23 6 11)= MT establishes a definite relationship between the skills of teaching and psychological theory.

Missing values = 10.

The majority of responses indicated that some relationship was established between the skills of teaching and psychological theory in that 27,0% (46,0%) felt that it was a vague relationship whereas 14,1% (27,6%) thought that microteaching established a definite relationship. Only 12,8% (14,1%) thought that microteaching did not establish any relationship between skills and psychological theory and 4,9% (6,1%) felt that there was no relationship anyway between them.

There was a clear difference between the responses from Universities and those from Polytechnics and Colleges in that, although all three chose 8' with a percentage of about 50%, 26,0% of University responses felt that there was no relationship whereas the other institutions gave strong support, i.e. 44,4% and 33,3%, for 1', a definite relationship between microteaching and psychology (at the ,0030* level). This may be influenced by the way microteaching is organised through the subject method courses in Universities. Similarly those staff using the most time for microteaching also felt that there was a much stronger link with psychology (at the ,0183* level) as did those using colour CCTV facilities (at the ,0505* level). A31 responses showed that a fair proportion (28,6%) of staff who assessed the whole course as opposed to the individual microlessons indicated that they felt there was no relationship between the skills of teaching and psychological theory (at the ,0035* level). None of these latter differences can be easily explained as the use of colour CCTV, type of assessment and the length of time devoted to microteaching appear to have no direct connection with psychology.

Wragg comments on the need for careful preparation of the student and that one of the options available could be a lecture on reinforcement theory by a psychologist, but that this "...tends to be an arid approach and one contrary to the essential spirit of microteaching, which is that the student should feel the practical reality of what he experiences" (Wragg 1974: 107). Possibly the one education discipline with the strongest link with the practical experience of the teacher in the classroom would be psychology and yet there appeared to be no connection between students' proficiency in the theory of learning and their behaviour as teachers (Aspi. 1972). In spite of this, strong links between microteaching and operant conditioning theory (Skinner 1953), observational theory (Bandura 1969) and dissonance theory (Festinger 1957) appear to be fairly evident (McKnight 1971; Meier 1968) but maybe it is as the

"majority of students suggested that psychological theory should be dealt with more fully," (McIntyre et al 1977: 29), or as indicated earlier, that it is more relevant for the theories of psychology if the psychological principles are brought to the analysis of the teaching situation and not the other way round. The link with psychology is also reflected in the theoretical background of those involved in research into microteaching, this again is evident through the interests in behavioural aspects, modelling and discrimination training (Hargie & Maidment 1979).

Table 5.27

Percentage of different institutions' responses for Item 8.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	5,2	26,0	50,6	18,2	77
polytechnics	7,4	3,7	44,4	44,4	27
colleges	8,2	4,1	49,0	38,8	49
RSA universities	5,9	3,9	33,3	56,9	51

Missing values = 11

South African universities were even more strongly in support of the relationship with the skills of teaching and psychological theory in that 56,9% chose 11). They also differ from the United Kingdom universities by a much smaller response to 5), i.e. 3,9% as opposed to 26,0%, the difference being at the ,0001* level. This difference is probably due to the more content oriented approach in United Kingdom universities as the microteaching is organised in subject method groups.

5.6.2 Microteaching and educational sociology X12

Number of UK

responses Option:

- 1 2 0 2)= Educational sociology is not related to the practice of teaching at all, not even in the classroom.
- 2 19 3 5)= Educational sociology is not related to the MT approach.
- 20 69 16 8)= The application of educational sociology in the practice of MT is not particularly significant.
- 8 10 3 11)= MT adds real meaning to the course in educational sociology because students get an opportunity to practise what the course preaches.

Missing values = 16.

The largest group, 38,7% (60,8%), expressed the view that the application of educational sociology to the practice of microteaching was not particularly significant. Only 6,1% (12,8%) thought that microteaching added real meaning to the course in educational sociology by giving students an opportunity to practise what the course preaches. Another 11,7% (14,7%) felt that educational sociology was not related to the microteaching approach and a further 1,2% (1,8%) chose 2), i.e. that sociology was not related to teaching at all, not even in the classroom.

The responses to UPC showed that there was a similar tendency as for Item 8.1 for university staff to be less in favour of sociology in its relation to microteaching than those of other institutions, particularly polytechnics (at the ,0493* level) and similarly for those using colour television (at the ,0550* level). A13 shows that those staff using children as pupils were more in favour of microteaching's link with sociology (at the ,0006* level). The responses to A27 show that, where the lecturer is not involved in the recording of micro-lessons, 50% favour 1), which may indicate that those with a sociological bias do not record their own classes (at the ,0057* level). Again the type of assessment appears to make some difference (at the ,0545* level), where 75,7% of those assessing individual lessons favour 8) and 28,6% of those assessing the whole microteaching course are divided in their opinion and choose 5), 8) or 11).

Table 5.28

Percentage of different institutions' responses for Item 8.2

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	2,7	22,7	64,0	10,7	75
polytechnics		17,4	52,2	30,4	23
colleges	2,0	6,1	79,6	12,2	49
RSA universities		8,2	40,8	51,0	49

Missing values = 19

South African universities showed a marked difference (at the ,0000* level) to the United Kingdom institutions in that 51,0% chose 11), indicating strong support for the relationship with educational sociology. They also differed particularly from the United Kingdom universities, since only 8,2% chose 5) as opposed to 22,7% of the latter. The difference can again be related to the organisation of microteaching in subject method groups in United Kingdom universities.

5.8.3 Microteaching and other courses X23

Number of UK

responses Option:

- 0 7 1 2)= No attempt should be made to relate MT to other courses in education.
- 5 36 7 5)= MT should be related to those course which prepare a student for practical teaching and to some extent to the more theoretical education disciplines as well.
- 6 66 7 3)= MT can be a useful experience for students when it is related to those courses which prepare a student for practical teaching.
- 4 11 6 11)= MT is only useful in teacher training if it is related to all other courses, theory and practical.

Missing values = 7.

Of the United Kingdom responses, 40,5% (49,5%) felt that microteaching was be a useful experience for students when it was related to those courses which prepared a student for practical teaching whereas a further 22,1% (29,5%) felt that it should be related to the theoretical education disciplines as well. Only 6,7% (12,9%) thought that microteaching was only useful if it related to all other courses, theoretical and practical, and a small minority 4,3% (4,9%) felt that no attempt should be made to relate it to the other courses.

The responses to A11 indicate that there is little difference between those staff operating with mixed subject groups and those with single subject groups, but that they differ from those not using microteaching at all by favouring a stronger relationship between microteaching and the other course, theory as well as practical (at the ,0149* level). Similarly those using demonstrations as a preparation for microteaching tend to favour a link with the other courses (at the ,0026* level) as do those who have their discussion on the micro-lesson after the lesson on playback and not later (at the ,0111* level). The responses to A29 show that as staff change from no assessment to informal and formal assessment, there is an increasing tendency to favour stronger relationships to other course (at the ,0426* level). A32A suggests that those staff not using a departmental technician for maintenance of the equipment also tend to be more in favour of microteaching being linked with other courses (at the ,0118* level).

Brusling (1974) reports that the need for a link between the theory and practice of teaching has been reported by many writers (Goodlad 1965; Sorenson 1967; Thompson 1970) and the possibilities of such a link might come from a theory of teaching (Gage 1966, 1978) or a theory

of instruction (Bruner 1966). McIntyre reports that although the students favoured the establishment of a better relation with psychology, as support for the skills approach, they felt that less time should be given to curriculum seminars in subject groups aimed at showing the relevance of the skill to the student's own subject (McIntyre et al 1977). One reason given for this attitude was that they had enough to cope with in practising a skill without having to explore the content of the subject as well.

Table 5.29

Percentage of different institutions' responses for Item 8.3

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	6,3	39,2	48,1	6,3	79
polytechnics	3,7	22,2	55,6	18,5	27
colleges	2,1	22,0	52,0	22,0	50
RSA universities	1,9	17,3	51,9	28,8	52

Missing values = 7

South African universities showed a stronger support for the link with other courses, than did the United Kingdom institutions, which, particularly the universities, showed a preference towards those courses preparing the student for practical teaching (at the ,0283* level). These responses again reflect the subject method emphasis in United Kingdom universities.

5.9.4 Relation of microteaching to other courses X8

When the responses to the three items were reduced to a four point scale, of first choice of opinion, and crosstabulated against type of institution, the single most popular combination for United Kingdom responses, with the number indicating those combinations in parentheses, was 8,8,8 (29) followed by 8,8,5 (16), 11,8,5 (10), 11,8,8 (10), 11,11,8 (10) and 5,8,8 (9). If the combinations are then extended to include 5,8,5 (6), 8,11,8 (4) and even 11,8,11 (7), 8,8,11 (7), 11,11,11 (3) and 8,5,8 (7), 8,5,5 (6), 5,5,5 (4), the dominant cluster of opinion over the three items, arranged in order of priority, consisted of:

- 8.2 8) The application of educational sociology in the practice of MT is not particularly significant. (95 responses), with 5) and 11) 17 responses each.

8.3 8) MT can be a useful experience for students when it is related to those courses which prepare a student for practical teaching. (68 responses)

or 5) MT should be related to those courses which prepare a student for practical teaching and to some extent to the more theoretical education disciplines as well. (42 responses), with 11) 17 responses.

8.1 8) MT establishes a vague relationship between the skills of teaching and psychological theory. (65 responses)

or 11) MT establishes a definite relationship between the skills of teaching and psychological theory. (40 responses), with 5) 19 responses.

On inspection there appeared to be no noticeable differences between the type of United Kingdom institution but for the South African universities the most popular combination of responses was 11,11,11 (13), which together with 8,8,8 (7), 11,8,8 (6), 11,11,8 (6) and, to a lesser extent, 8,8,5 (3) indicate much stronger support for the linking of microteaching with all other courses and for a strong relationship with educational psychology and sociology.

5.9 ECONOMIC FACTORS

The economic factors are probably the most important ones that affect policy decisions in higher education. This was apparent in the late sixties and early seventies when there appeared to be no shortage of finance in education and there was a great development in physical facilities and resources in higher education in many parts of the world. It is equally apparent during the recession periods that followed when the finance, even to maintain the facilities, was no longer available. It is interesting to note that microteaching initially developed during the boom years of the sixties but that, by the mid seventies, even the experimental units like Stirling were beginning to argue for some sort of economies in the way microteaching could operate:

"Microteaching can be very expensive on manpower, equipment and organisation...for it to be an economically viable training technique these various resource requirements must be minimised."

(McIntyre et al 1977: 31)

but also to report that students' reactions tend to suggest that the more expensive alternatives, increased staff involvement and more sophisticated facilities, are preferable;

"...economic considerations and students' reactions lead to contradictory conclusions"

(McIntyre et al 1977: 32),

The system of Minicourses, developed by the Far West Laboratory for Educational Research & Development in the United States (Borg et al 1970a), and the self instructional microteaching system at Lancaster University in the United Kingdom (Perrott 1974a,b), were devised and promoted as more economic alternatives. Similarly in Australia there were attempts to identify more economical approaches to microteaching (Clift et al 1976).

5.9.1 Use of lecturers' time X91

Number of UK
responses Option:

- 2 30 6 2) = MT is very expensive on lecturers' time, as it requires a lot of personal supervision and tutorials for discussion of the lessons with individual students.

4 28 6 5)= MT is expensive on lecturers' time, but more economical use can be made of group discussion with students.

5 67 8 8)= MT is no more expensive on lecturers' time than the traditional approaches to the teaching of method courses for school subjects.

2 0 0 11)= MT reduces a lecturers' contact time, since if MT is properly organised the students will benefit without the lecturers' involvement.

Missing value = 5.

Only two responses (1,2%) indicated that microteaching reduced a lecturer's contact time and that with proper organisation students could benefit without the lecturer's involvement. The largest group of responses, 41,1% (49,1%), indicated that it was no more expensive on lecturers' time than the traditional approaches to the teaching of subject method courses. Whereas 17,2% (23,4%) thought that it was expensive on time but more economical use could be made of group discussion, 18,4% (23,3%) thought it was very expensive, as it required a lot of personal supervision and tutorials for discussion of lessons with individual students.

A higher proportion (71,1%) of those using more than 7 hours of practical for microteaching chose 8), as compared with 53-57% of those using less than 7 hours and more of those using less than 3 hours (29,4%) thought microteaching was very expensive on lecturer's time (at the ,0939 level). The responses to A11 supported the previous finding, since those staff who did not use microteaching tended to favour the views that microteaching was time consuming for staff, as opposed to those involved with mixed or single subject groups that showed less differences between themselves (at the ,0004* level). The responses to A12 showed some differences (at the ,0220* level), in that 78.1% of those who used microlessons longer than 16 minutes favoured 8) and more of those using less time (37,0%) favoured 2). It appears that the actual length of the lesson itself is not directly proportional to the time committed by the staff member, suggesting that other factors are also involved. Staff using children as 'pupils' for microlessons also tended towards the view that microteaching was more expensive on staff time than those using only peers (at the ,0262* level), as did those staff using smaller numbers of pupils (at the ,0106* level). This was possibly due to the tendency for most subject method lecturers to use their peer group as the class as opposed to using small groups of children. A15B responses suggest that those using lectures as preparation for microteaching showed some tendency to the feeling that microteaching was more expensive on staff time (at the ,0322* level). Staff who organise their discussion on the microlesson later tended (50,0%) to favour 5) whereas of those having their discussion immediately after the lesson or playback

62-69% favour 8) (at the ,0561* level). A26C shows that staff using audio also tend to favour the idea that microteaching is expensive on staff time (at the ,0353* level) as opposed to those using live lessons or those using neither.

The total rejection of what could be the basis of a self instructional microteaching course for student teachers is interesting bearing in mind the development of such approaches in in-service courses for practising teachers. (Borg et al 1970a; Hutchins et al 1971; Perrott 1974a, 1974b). The responses also appear to reflect a less rigorous approach to microteaching than the skills or behaviourist approaches imply, in that the majority of responses indicate a less formal microteaching approach within the subject method course.

Table 5.30

Percentage of different institutions' responses for Item 9.1

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	25,3	24,1	49,4	1,3	79
polytechnics	21,4	32,1	42,9	3,6	28
colleges	23,5	19,6	56,9		51
RSA universities	15,4	34,6	40,4	9,6	52

Missing values = 5

South African universities tended to choose 5) more than the United Kingdom universities and colleges, and in this way were similar to the polytechnics, although the difference was not particularly significant (at the ,0991* level).

5.9.2 Provision of physical facilities X92

Number of UK
responses Options:

- 0 5 0 2) = MT to be properly organised needs a very large capital outlay for the provision of several recording studios and playback rooms specially designed with sophisticated CCTV facilities.
- 2 41 12 5) = MT can be effectively organised using one or two specially designed recording studios with simple CCTV units, playback can be organised in any venue.
- 9 66 2 8) = MT can be organised in improvised classrooms using simple CCTV or even just audio recording, playback can be arranged in any venue.
- 5 16 1 11) = MT can be properly organised in improvised accommodation, it requires no special facilities as recording is not necessary.

Missing values = 4.

A small minority of United Kingdom responses, 3,1%, felt that microteaching needed a very large capital outlay for the provision of recording studios and playback rooms with specially designed sophisticated CCTV facilities. At the other end of the scale, 9,8% (19,5%) thought that it required no special facilities at all as recording was not necessary. The majority of opinion accepted that playback could be in any venue but 40,5% (47,2%) favoured improvised classrooms with simple CCTV or audio facilities and 25,2% (33,8%) preferred one or two specially designed recording studios with simple CCTV units.

The responses to Item 9.2 were cross-tabulated against those for Item 1.1, viz. Physical facilities. The difference as indicated by Chi-square was very significant (at the ,0000* level). Of those who chose 11) on Item 9.2, 90% chose 2) on Item 1.1, in both cases indicating a preference for improvised accommodation. Similarly, 80% of those who chose 2) on Item 9.2 also chose 11) on item 1.1, indicating a need for specially designed studios and a large capital outlay. No responses indicated 2) for both items, or 11) for both items. Hence although the scales were reversed between the two items the responses appeared to be consistent, giving some indication of the reliability of the responses, particularly bearing in mind that the items were at opposite ends of the questionnaire. A similar exercise was repeated with Item 9.2 and Item 1.2, Technical sophistication and a significant difference again observed (at the ,0000* level) the distribution showing that the scales were reversed in order of increasing technical sophistication.

There appear to be some differences (at the ,0549* level) in the responses by different subject groups in that 64,9% of the Science staff and only 28,6% of the Social Studies favoured

8), supporting the difference indicated previously for Item 1.3 that science staff preferred to improvise in their own laboratories using simple CCTV or audio. A5B shows a very significant difference (at the ,0003 level), in that those staff indicating no technical assistance tended to favour improvised accommodation, even without recording. No one was in favour of 2). A11 responses indicate that staff not using microteaching tend to favour the specially designed facilities rather than the improvised ones, as compared with those using mixed or single subject groups (at the ,0056* level). Again those using larger numbers of pupils in the micro-lessons tend to favour improvised facilities, the largest groups indicating that recording may not be necessary (at the ,0515* level). These are possibly the large peer groups used in subject method courses. Of the staff who 'Always' used observation schedules, 72,7% chose 8) and none indicated that no recording was necessary, whereas those staff who 'Never' or 'Sometimes' used them were more evenly divided between 5) (35%), 8) (45%) and 11) (20%) (at the ,0729 level). The timing of the discussion after the microlesson appeared very significant (at the ,0000 level), 68,8% of those having the microlesson later favoured 6) improvised facilities with playback in any venue, whereas those discussing after playback were equally divided between 5) and 8) i.e. specially designed studios and improvised facilities, but 44,4% of those discussing after the lesson also indicated that no recording was necessary. A21 shows a difference in the responses (at the ,0643 level) with those who use reteach lessons indicating more support for 5) and those not using reteach giving more support to 8) and 11). A25 shows a very significant difference (at the ,0000 level), 80,0% of staff using purpose built facilities favoured them with simple CCTV only, whereas 59,6% of those using improvised facilities favoured improvised classrooms with simple CCTV or audio. Similarly those using colour CCTV gave more support to specially designed studios and less to improvised ones with no recording (at the ,0157 level). A26C showed less support for specially designed studios with simple CCTV from those using audio and those using live micro-lessons tended to favour no recordings (at the ,0000* level). The responses to A27 showed differences (at the ,0000* level) in that, where a technician was available for recording, 61,9% favoured 5) and where someone else was recording about 55% favoured 8). Of the very small proportion of staff using microteaching after teaching practice 77,8% favoured specially designed facilities with simple CCTV (at the ,0154* level). A30 showed some difference (at the ,0229* level) depending upon whether the assessment was specific, global or a combination, in that the global only group tended (65,1%)

to favour 8). 334 responses indicated that 66,7% of staff had to abandon microteaching because of faults chose 8) whereas the rest tended to be divided between 5) and 8) (at the ,0097 level).

Table 5.31

Percentage of different institutions' responses for Item 9.2

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	3,8	31,3	47,5	17,5	80
polytechnics	7,1	25,0	57,1	10,7	28
colleges		45,1	45,1	9,8	51
RSA universities	13,5	42,3	44,2		52

Missing values = 4

A higher proportion (13,5%) of South African responses were in favour of 2), whereas there were none in favour of 11). Hence, the tendency in South Africa was towards more expensive and sophisticated facilities than were required by the United Kingdom institutions, but the majority were equally divided between 5) and 8) (at the ,0063* level).

5.9.3 Provision and maintenance of equipment X93

Number of UK

responses Option:

3 58 10 2)= The CCTV equipment used in MT requires regular maintenance and repair by a technician who is immediately available, in order to avoid situations where there is no recording or where the quality of recording is unsatisfactory.

7 46 8 5)= The CCTV equipment used in MT requires regular maintenance and repair by a technician who is not necessarily immediately available, as long as it works next time it is needed.

0 14 1 3)= Regular maintenance of CCTV equipment for MT is unnecessary, as long as any faults are remedied fairly soon after they appear.

2 4 0 11)= The equipment used in MT does not require any regular maintenance and if there is a breakdown it can be repaired at any time.

Missing values = 10.

The majority of United Kingdom responses supported the need for regular maintenance and repair of CCTV equipment. Although 66,6% (43,4%) felt that the technician should be immediately available in order to avoid situations where there was no recording or the quality was unsatisfactory, 28,2% (37,4%) felt it was sufficient if the equipment worked next time it

was needed. Only 0,6% (10,4%) felt that regular maintenance was not necessary as long as faults were remedied fairly soon and 2,5% felt that the equipment used in microteaching did not require any regular maintenance and that it could be repaired at any time if it broke down.

Of those few staff using a formal assessment of microteaching, 87,5% chose 2) and the rest chose 5), whereas staff using informal assessment were less concerned with faults being repaired, than were those not using an assessment (at the ,0352* level). Similarly staff using microteaching in between teaching practices were also more in favour of immediate availability of a technician than those who did not (at the ,0510* level). This could relate to the longer skills orientated programmes which are more likely to operate between teaching practices because of the time involved.

Table 5.32

Percentage of different institutions' responses for Item 9.3

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	47,4	38,2	10,5	3,9	76
polytechnics	65,4	26,9		7,7	26
colleges	35,3	49,0	13,7	2,0	51
RSA universities	48,1	38,5	11,5	1,9	52

Missing values = 10

The responses from South African universities were very similar to those from United Kingdom universities and also tended to emphasise the need for regular and immediate maintenance (at the ,2680* level).

5.9.4 Provision of school children X94

Number of UK
responses Option:

- 1 14 1 2)= As children are essential for a MT class, the transport and supervision of them is an added expense on the costs of MT.
- 2 14 7 5)= Children are essential for a MT class but the additional expense of transport and supervision is negligible.
- 12 57 15 8)= Children are desirable but are not essential for a MT class, any expense for transport and supervision can be avoided by using peer groups.
- 10 24 3 11)= It is better to use peer group classes rather than children for MT, the additional expense for travel and supervision is unnecessary.

Missing values = 3.

From the United Kingdom responses 35,0% (51,6%) indicated that even if children were desirable as 'pupils', they were not essential for a microteaching class and, hence, any expense for transport and supervision could be avoided by using peers. A further 14,7% (22,6%) thought that the additional expenses were unnecessary as it was better to use peers. The remainder felt that children were essential but 8,6% (14,7%) felt the additional expense was negligible and a further 8,6% (9,8%) that the transport and supervision was an added expense.

The responses to A11 were very significantly different (at the ,0004 level) in that a higher proportion (25,0%) of those not using microteaching felt that children were essential and an added expense whereas those working with mixed and single subjects tended to indicate that it was better to use peer groups. Similarly of those staff who were using children, 56,5% thought they were essential but that the expense was negligible, whereas of those using peers only 63,6% chose 8) and 34,0% 11) (at the ,0000* level). The responses to A15B showed that more, 27,1%, of those using handouts as preparation thought children were essential (at the ,0288* level). In the same way those using observation schedules (at the ,0494* level) and those using reteach lessons (at the ,0668* level) tended to feel that children were essential. Of staff offering more than two microlessons per student, 52% indicated that children were essential and a further 44% that they were desirable, whereas, the fewer the lessons offered, the more likely staff were prepared to tend towards 11) (at the ,0000* level). The use of CCTV tended to show some differences in that more staff using black/white (A28B) and not using colour (A28A) tended to support the use of peer groups (at the ,0289* and ,0300* levels). Using microteaching before teaching practice, more staff (61,5%) thought children were desirable but not essential whereas in between teaching practices children were seen as more essential (at the ,0002* and ,0041* levels).

The original Stanford models used children and paid them, not only to participate in the lessons as pupils but also to provide feedback for the student teacher using rating scales. Other expenses involved the provision of transport to take the pupils to and from the campus, the provision of cool drinks or sweets as a reward for participating and possibly the employment of a teacher to supervise them in between sessions. Although it was seen as essential that the pupils should be taken from the population the student was trained to teach (Cooper & Allen 1969), Ward's survey in 1970 showed that 52% of American colleges used peer

groups 76-100% of the time and only 12% used children 76-100% of the time. In 1973 Tunney reports that three in four Australian colleges were using children and Hargie reports that of institutions in the United Kingdom 80% used peer groups, 68% used children and 48% used both. Hargie also reports from Ulster Polytechnic that students saw no relevance in teaching peers but were hostile to them also rating the students' teaching, reporting a student as saying: "It's nerve wracking enough in front of the camera but if I thought those pupils were watching every move I made, that would just finish me." (Hargie & Maidment 1979: 5), even though some studies have shown that children's ratings can be of value (Bush 1966; Fortune et al 1969; Whagg 1971). On the other hand it has also been shown that although students may prefer teaching children, teaching peers makes little difference to the acquisition of skills and to their self confidence (Wilshaw & Telford 1976; Wood & Hedley 1968), in addition, peers can benefit from participating as pupils (Goldthwaite 1969; Levis et al 1973).

Table 5.33

Percentage of different institutions' responses for Item 9.4

<u>Option chosen:</u>	<u>2)</u>	<u>5)</u>	<u>8)</u>	<u>11)</u>	<u>Tot.no.</u>
U.K. universities	8,8	10,0	52,5	28,8	80
polytechnics	14,3	17,9	42,9	25,0	28
colleges	9,6	19,2	57,7	13,5	52
RSA universities	7,7	5,8	63,5	23,1	52

Missing values = 3

Only 13,8% of South African University responses indicated that children were essential for a micro-class, but 68,1% indicated that children were desirable, giving the impression that peer groups are more likely to be used than in the United Kingdom. The difference was not significant (at the ,3026* level).

5.9.5 Preparation and planning time for microteaching X95

Number of UK

responses Option:

- 1 5 2 2)= The preparation and planning of an effective MT programme is so demanding that it becomes impossible to implement with the limited time and facilities available.
- 6 36 9 5)= MT requires considerable preparation and planning to coordinate staff, students, pupils and the use of recording equipment effectively.
- 1 45 13 8)= The preparation and planning for MT appears formidable but on the whole it is quite straight forward.
- 4 32 5 11)= The preparation and planning for MT is not a problem, it is easily accomplished.

Missing values = 4.

Only a minority of United Kingdom responses 3,1% (4,5%) indicated that the preparation and planning of microteaching programmes was so demanding that that it became impossible with the limited time and facilities available, but 22,1% (31,3%) felt it required considerable preparation and planning to coordinate staff, students, pupils and the use of recording equipment. A further 27,6% (36,2%) felt that although preparation and planning appeared formidable, on the whole it was quite straight forward, and 19,6% (25,2%) thought that it was not a problem but easily accomplished.

Although the practical hours devoted to microteaching made no difference to the proportion choosing 8), i.e. 44%, whereas 36,4% of those using 3 hours or less chose 5), a similar proportion of those using longer than 3 hours chose 11) (at the ,0508* level). The responses to A11 show that 61,5% of those not using microteaching felt that it did require considerable planning whereas those who are using microteaching tend to give more support to 8) and 11) (at the ,0001* level). Similarly those using reteach lessons tended towards 5) whilst those who were not using reteach lessons tended towards 11) in their opinions (at the ,0164* level). Again the use of CCTV appeared to show differences in the responses, a higher proportion of those using colour (55,2%) favoured 8) and a higher proportion (37,2%) of those using black/white favoured 11) (at the ,0152* and ,0220* levels). The responses to A35 showed differences (at the ,0203* level) in that approximately 50% of those operating microteaching programmes for up to five years chose 8), 48,4% of those operating for 6-9 years chose 11) and 42,0% of those operating for ten or more years chose 5).

Table 5.34

Percentage of different institutions' responses for Item 9.5

Option chosen:	2)	5)	8)	11)	Tot.no.
U.K. universities	8,9	25,3	34,2	31,6	79
polytechnics	3,6	32,1	46,4	17,9	28
colleges		42,3	36,5	21,2	52
RSA universities	1,9	38,5	51,9	7,7	52

Missing values = 4

South African university responses tended to be more like those from polytechnics, with 51,9% and 38,5% who chose 8) and 5) respectively, whereas United Kingdom universities and colleges showed more responses (31,6% and 21,2% respectively) for 11). The difference was significant at the ,0106* level.

9.1 to 9.5 Economic factors

When the responses to the five items were reduced to a four point scale, of first choice of opinion, and crosstabulated to give a frequency count for each type of institution and subject group, the most popular combinations and the number of United Kingdom responses for Items 9.1 to 9.5 were 8,8,5,8,8 (9), 8,8,2,8,8 (6), 6,5,2,11,5 (6), 8,5,2,9,8 (5), 8,5,5,8,8 (5), 8,8,2,11,5 (5), 5,5,2,8,5 (3), 5,8,2,8,5 (3), as well as 8,5,5,8,0 (4), 8,5,2,8,0 (3) and 8,8,2,8,0 (2). It appears that the most dominant cluster over the five items consists of the following, arranged in order of the number of responses for each:

9.1 8) MT is no more expensive on lecturers' time than the traditional approaches to the teaching of method courses for school subjects. (45 responses)

or 5) MT is expensive on lecturers' time, but more economical use can be made of group discussion with students. (6 responses)

9.4 8) Children are desirable but are not essential for a MT class, any expense for transport can be avoided by using peer groups. (40 responses)

or 11) It is better to use peer group classes rather than children for MT, the additional expense for travel and supervision is unnecessary. (11 responses)

9.3 2) The CCTV equipment used in MT requires regular maintenance and repair by a technician who is immediately available, in order to avoid situations where there is no recording or where the quality of recording is unsatisfactory. (34 responses)

on 5) The CCTV equipment used in MT requires regular maintenance and repair by a technician who is not necessarily immediately available, as long as it works next time it is needed. (19 responses)

9.2 5) MT can be effectively organised using one or two specially designed recording studios with simple CCTV units, playback can be organised in any venue. (26 responses)

on 8) MT can be organised in improvised classrooms using simple CCTV or even just audio recording, playback can be arranged in any venue. (25 responses)

9.5 8) The preparation and planning for MT appears formidable but on the whole it is quite straight forward. (25 responses)

on 11) MT requires considerable preparation and planning to coordinate staff, students, pupils and the use of recording equipment. (17 responses)

Hence, the expense of operating microteaching appears to be related to the use of simple CCTV equipment with technician backup, peer groups can be used and although the planning may appear formidable it is more straight forward than it looks; it is not as expensive on staff time as some would have it. Whilst this may represent some sort of consensus opinion it is not necessarily representative of a purist approach to microteaching but is likely to be more pragmatic.

The only combination chosen by South African universities with more than two responses was 5,5,5,8,8 (3), the spread of responses over the 1024 possible combinations makes it impossible to identify an overall cluster in this section.

In the next chapter the main conclusions of the study are brought together in order to see what special significance they may have for the South African situation. It is inevitable that in achieving some sort of summary much of the detail identified in this chapter and the previous one will have to be discarded. In looking at the broad conclusions, however, it is important that reference is made to the detailed results on which they are based and which, in any case, can be taken on their own merits.

CHAPTER 6

CONCLUSIONS AND IMPLICATIONS

6.1 Conclusions from the investigation

The data from the research study can be categorised in various ways. It consists of the findings of two surveys concerned with the use of microteaching in one year postgraduate teacher training courses; one of the Post-Graduate Certificate in Education (PGCE) course offered by universities, polytechnics and colleges in the United Kingdom, the other of the Higher Diploma in Education (Post-Graduate) i.e. HDE(PG), offered by the universities of South Africa. It consists of a comparative study of the use of microteaching within two systems of postgraduate teacher training which are evolving independently of each other since they are each affected by their own unique geographical, social and political situation.

It also consists of an in-depth study of the factors which affect the way that microteaching is used with an attempt to identify future directions and trends. For this purpose most of the attention was given to the United Kingdom data rather than the South African data, on the grounds that a larger number of institutions are involved in postgraduate teacher training and a larger number of responses were received giving a more comprehensive coverage of the various aspects of postgraduate teacher training. In addition, more United Kingdom institutions and staff were likely to have been using microteaching programmes over a longer period, as it is a comparatively recent innovation in many South African universities, of which many have only recently been established as institutions. It is also apparent that teacher training like many other aspects of education in South Africa is influenced by ideas and techniques developed overseas, particularly in the U.S.A. and Europe, with the English speaking universities being especially influenced by those in the United Kingdom. The teacher training curriculum and content are examples of this influence, as are the various innovations in education such as team teaching, audio visual media, programmed learning, television, curriculum developments in schools, counselling, remedial education, giftedness etc. The United Kingdom often serves as a buffer between innovations from the United States and their

implementation in South Africa, providing an opportunity for ideas to be tried and tested. Hence, an in-depth study of teacher training and the use of microteaching in the United Kingdom does not only have predictive value for the United Kingdom itself, but may have significant value in estimating future trends in South Africa. For this reason the two groups of data have been kept separate as two independent but related surveys, linked by a comparative study.

6.1.1 Conclusions from the United Kingdom survey

In examining the results of the United Kingdom survey, it is useful to bear in mind two of the more recent surveys conducted by Hargie and Maidment in 1975 and by Yule in 1980, which are referred to in some detail in Chapter 1.4. The former was the most comprehensive of the two surveys and was directed at 220 'target' establishments, classified as local authority, voluntary, university and polytechnics, operating all types of initial training, not just postgraduate, at a time when "...the end of the first decade of microteaching in the United Kingdom was approaching" (Hargie & Maidment 1979: 42). Responses to Part I of the survey numbered 177 and to Parts II and III, the more detailed investigation of existing or planned microteaching programmes, 84 responses were considered to be of sufficient detail for analysis. Apart from the type of institution there appeared to be no distinction between the use of microteaching in one year postgraduate courses and four year diploma or B.Ed. courses for initial teacher training. The survey by Yule covered 8 universities and 4 colleges in England and Scotland, with responses from 20 people, and did not distinguish between the types of initial training, but most institutions appeared to offer the one year postgraduate teacher training course – the universities of Bradford, Lancaster and Stirling were the exceptions.

Hargie and Maidment's survey preceded "...the most far-reaching and long-term changes in the system for training teachers in its long history" (Hargie & Maidment 1979: 49) and which led to the outright closures, amalgamations and redesignations of colleges that have occurred in recent years in the United Kingdom. The present survey may be able to provide answers to some of the questions posed about the possible direction of microteaching that arose from the earlier survey, but only in relation to postgraduate teacher training.

With reference to the four points that Hargie and Maidment make about microteaching in the United Kingdom, the present survey suggests that for postgraduate teacher training:

1. The degree of market penetration

It appears that the use of microteaching is more likely to be on the decline than on the ascendency. Although a few institutions indicate that they are exploring its use for the first time, there is more evidence of tutors no longer making use of the technique. A number of factors appear to have contributed to this trend. The decline in the national economy has introduced cuts in capital development and, more importantly, in the maintenance and running expenses of existing facilities. There were many reports of lack of technical assistance, of technical assistance being restored again after an interval and of equipment not being provided when requested. Teacher training staff appeared to be under increasing pressure, again due to the financial restrictions imposed on the institutions by central government. The move towards increased productivity and greater efficiency in teacher training departments has also made it more difficult for tutors to provide those aspects of the training which are expensive in time. Hargie and Maidment's estimate that "...we expect student involvement in microteaching to increase in proportion, if not in absolute terms." (Hargie & Maidment 1979: 112) might well have been achieved, but this is no indication of the growth of microteaching but an indication of the tremendous decline of teacher training places.

2. The degree of differentiation

The evidence from the survey shows an increasing tendency towards differentiation in the use of microteaching. A few institutions continue to offer the Stanford model of microteaching but an increasing number appear to be developing more economical models, by using live and audio facilities. The change in the whole climate of teacher training towards more school-based courses has also added to the differentiation, with some tutors exploring a microteaching model more suitable to the school classroom situation as opposed to the special microteaching laboratory on the campus. Hargie and Maidment's conviction that "...the 'teaching' element will survive." (Hargie & Maidment 1979: 113) appears to be supported by the present survey, but the 'training' element of microteaching does not appear to have grown in that the majority of institutions were providing a minimal number of microlessons for their students and very few were offering what might be considered as a full microteaching approach.

3. The degree of capitalization

Electronic equipment for video recording has become more reliable, more effective and cheaper. The trend towards microteaching studios with several black/white television cameras

and a video mixer in a fixed location, although still used where they have been established, appear to have given way to a portable colour camera and video recorder with the facility for end-on electronic editing. This supports the tendency for microteaching to be used in improvised rooms and even in school classrooms.

4. The degree of utilization

The survey suggests that there has been a fuller integration of microteaching into other areas of the curriculum, but this appears to have had a counter effect on the use of microteaching in teacher training as existing facilities have been put under even greater pressure. Because of the demands from other courses and the greater pressures on, sometimes diminishing, technical assistance, to avoid timetable clashes and possible disappoint many tutors have chosen not to require the sophisticated facilities and to operate microteaching in a simpler way or not at all.

Microteaching appears not to have challenged the self-sufficiency of teaching practice. The lengths of the periods of block teaching practice have been more likely to increase than decrease and these have been supplemented by regular school experiences throughout the whole course of training. The overall evidence from the study, particularly the trend towards school-based teacher training, shows that government and society at large are more in favour of increased school experience for student teachers and greater involvement in the training of teachers by those with immediate and direct responsibility for the education of pupils in classrooms.

The present survey certainly supports the view "...that the 'dizzy decade' of microteaching development in the the United Kingdom, from 1966-75, is being succeeded by a 'quiet quinquennium'..." (Hargie & Maidment 1979: 114), but, in postgraduate teacher training, with its increased emphasis on a subject method professionally oriented approach, microteaching appears to have reached a fairly minimal use, serving mainly as a preparation for longer periods of classroom experience.

Yule's conclusion that microteaching sessions are organised mainly within the subject method courses is confirmed (Yule 1981). However, the evidence from this survey suggests a much wider application of microteaching than Yule suggested from his, in that a reasonable response was received from first language (i.e. English) as well as the other subject areas (see section 4.2). Hence the lack of use of microteaching is not necessarily related to the

subject or the philosophy inherent in it but appears to be related to a number of factors, which this thesis attempts to identify in section 6.1.4 of this chapter.

The overall picture of microteaching in the United Kingdom that this survey conveys is of a pattern of organisation very different from the original Stanford model. There are many comments on the Organisation Questionnaire (see section 4.37 and Appendix 2.4) which indicate that many different subject method tutors see their particular approach as being rather unique and not fitting the normal model associated with Stanford. Some are prepared to call what they are doing 'microteaching', whereas others, for a variety of different reasons such as not videorecorded, no children involved, no use of reteach lessons, no specific skills emphasised, etc., choose not to refer to their approach as microteaching. The 'purer' form of microteaching appears to operate in relatively few institutions and, where it exists, is usually organised by Education staff as a compulsory course for all PGCE students, independent of subject method courses. It is interesting to note that one of these, viz. Bulmershe College, although placing great emphasis on the skills approach, does not use video recording.

United Kingdom universities, universally, organise the professional preparation of student teachers through the subject method tutors and the course pattern that has evolved consists of an early short teaching practice, a much longer block teaching practice and one day a week school experience during the remainder of the course. The professional preparation time also includes tutorial work and seminars relating to important education themes so that they can be related and made relevant to the subject method area. In spite of what appears to be a lot of timetabled periods available, i.e. one whole day for main subject method and half a day for second method, the pressure of time still exists, particularly for those aspects of the course which are campus-based. Hence, many tutors, instead of operating a formal microteaching programme on campus, are looking for a school-based alternative. The subject method being the main focus of the course, less emphasis appears to be placed on general 'teaching skills' and more attention appears to be given to subject specific skills, such as demonstration in science, language exercises etc., for the limited number of microlessons that can be accommodated before or in between teaching practices. The majority appear to use microteaching, if video recorded, for its cosmetic effect and as a preparation for the classroom experience in the early teaching practices. Although some acknowledgement is paid to a skills or behavioural modification approach, the time allowed and the opportunity available

for students is generally so minimal that little, if anything, can be achieved.

The following summarizes the findings of the United Kingdom responses, the percentages indicate the proportion who chose that particular opinion on the Attitude Questionnaire or responded to the item on the Organisation Questionnaire. The information is tabulated according to the grouping of the items in the Attitude Questionnaire and the most popular opinion(s) for each item is listed together with any relevant results from the items in the Attitude Questionnaire.

Physical and technical facilities

1.1 An improvised classroom with recorder in the room was adequate (55%). Responses to A25 showed that 61,3% operated in improvised classrooms only.

1.2 CCTV recording using one camera was adequate (61%). Responses to A26A,B showed that 37% used only one colour camera and a further 22% used one black/white camera.

1.3 Opinion was divided between no technical assistance needed (24%), technical assistance to operate and manage the equipment (31%) and more competent assistance to operate and repair any faults (24%). Response to A5B showed that 55,5% had technical staff available, but only 13% used technicians to supervise (A16) whereas 38% used them for recording (A27). Responses to A32A showed that 45% had a departmental technician available for maintenance. Responses indicated, also, that the use of technicians was not applicable in 12,2% of cases. Other aspects of technicians are discussed under 9.3 in relation to Economic factors.

Preparation for microteaching

Responses to A9A indicated that 49,4% of staff allocated less than three hours to their preparation for microteaching.

2.1 Students should have a free choice of topics with staff approval (38%) and a limited list of topics should be provided (40%).

2.2 Students should plan their own lessons (30%), but initially they should be given some direction (51%).

2.3 Opinion was divided between all the possible options available from a minimum of preparation (17%), a general introduction to skills (29%), observation and identification of skills first before using them (54%) and, of these, evaluating their significance as well

(23%). Responses to A15A showed that 78,6% used lectures as preparation for microteaching. Responses to A7A showed that 43,1% used only one lecture, 24,6% used 2-3 lectures and 27,2% used more than three, of which some used considerably more. The number of microlessons and the size of the student group are also likely to be factors which affect the preparation and both these showed considerable variation, as detailed later in 7.2 and 9.5.

2.4 Opinion was divided between demonstration only of the skills first (29%) and the use of handouts with demonstrations (30%). Responses to A15B,C showed that 68,1% used handouts as preparation and 63,4% used demonstration lessons.

2.5 Although both students and pupils should benefit, the students need for controlled teaching has priority (51%). As the responses to A13 showed that only 20,9% had actually used children for all or some of the microlessons, this issue is not a particularly crucial one.

Supervision of microteaching

3.1 Tutor supervision and feedback are essential (80%). Responses to A16 showed that 72,8% of lecturers supervised microteaching by themselves, a further 25% had other assistance as well. Feedback to the student (A18) was provided by the lecturer, the peer group and the student in 68,6% of cases.

3.2 Opinion was divided between the peer group providing the necessary supervision and feedback once they have been shown what is involved (44%) or only the supervision without feedback to the individual student (38%). Responses to A18 showed that peer groups alone were used in only 1% of cases. However, A19 showed that 54,4% of discussions on the microlessons occurred with the whole group of students and 45,6% indicated that individual discussions also took place, either instead of (8,8%) or as well as group discussion (36,8%).

3.3 Opinion was divided between observation schedules of limited value only (31%), of value for other students to use when viewing lessons (28%) and of value for the individual to use when assessing their own playbacks (33%). Responses to A17 showed that 47,8% sometimes used observation schedules and a further 17,9% always used them.

3.4 There should be no formal assessment (93%), but there could be an informal assessment (50%). Responses to A29 showed that 74,1% used an informal assessment and 7,4% a formal assessment. Of those assessing microteaching 43% chose to do it globally and 69% chose to do it for each individual lesson, as shown by responses to A30 and A31.

Reteach lessons

The responses to A21 showed that only 3,9% always used reteach lessons and 39,7% of staff sometimes used them.

4.1 Reteach lessons were not necessary (39%), but if used could be planned for soon after the initial lesson (30%).

4.2 Reteach lessons should be optional or at the discretion of the tutor (55%) but not really necessary (26%).

4.3 Reteach lessons were of limited value and should be kept to a minimum (58%).

Immediate objectives

5.1 An introduction to classroom teaching with some opportunity to practise specific skills (52%).

5.2 Supportive to students (80%), but opinion divided over whether additional skills could be acquired (37%) or certain behaviour modifications should be expected (43%).

5.3 Allows students to practise specific teaching skills (81%), but 31% thought it was not possible for them to be validly assessed.

Effects of microteaching on students

6.1 Students, as a result of microteaching, see teaching as an intellectually demanding job which requires a range of distinctive professional skills (76,7%). The range of skills identified are included in section 4.25 of Chapter 4.

6.2 The relevance to students is seen as an introduction to school experience (78,5%).

6.3 The confidence of students is increased (93,8%) but of these 69,3% felt that it might undermine the confidence of some.

6.4 The analytic prescriptive approach does not affect the need for creativity and originality (65,8%), with some of these feeling that creativity is encouraged (19,6%), but others feel that there is likely to be conflict but not significantly at this stage (23,3%).

Philosophical factors

7.1 Students benefit from the cosmetic experience of seeing and hearing themselves (91,4%).

Responses from A26A,B,C indicate that 47,4% used colour television, 37,8% black/white and 14,1% audio recording.

7.2 Microteaching has value as a preparation for classroom teaching and should precede the school practice (84,7%). Responses to A28A,B,C and D showed that 75,6% used microteaching before school teaching practice, 29,6% in between, 6,7% after, 11,1% during and 0,7% to replace teaching practice.

The number of microlessons (A22) for each student was one (52,6%) or two (25,2%) with only 4% indicating more than five and up to 10. It appears that the opportunity for either a skills approach or behavioural modification is extremely limited in the circumstances and hence the favourable comments towards the behavioural modification aspects of microteaching from the Attitude Questionnaire are possibly not as significant as they first appear.

7.3 Although of value for practising teaching skills (94,4%), of these only 33,1% felt that the skills were learnt.

7.4 Microteaching has value as a means for behaviour modification but might interfere with the effectiveness of a student's own teaching style (82,1%).

Relation of microteaching to other courses

Responses indicating the subject area of the staff responsible indicated that only 16,9% were not in a particular subject area, the majority of response came from subject method tutors. As in most cases a whole day is devoted to the main method course, the length of the session can be up to 7 hours, 30,8% indicated a session of more than two hours (A8). However, as has been previously mentioned, the pattern of postgraduate teacher training which has developed in the United Kingdom in recent years is such that the gap between education theory and classroom practice is an important responsibility for the subject method tutor.

8.1 Microteaching does establish a relationship between the skills of teaching and psychological theory (73,6%).

8.2 The application of educational sociology to the practice of microteaching is not particularly significant (60,8%)

8.3 Microteaching can be useful when related to those courses preparing the student for practical teaching (78%) and of these 29,5% felt it could relate to the more theoretical disciplines as well.

Economic factors

9.1 Opinion was divided over whether microteaching was no more expensive on lecturer's time (49,1%) or whether it was expensive (46,7%) with 23,4% feeling that more economical use could be made of group discussion. Responses to A9A showed a wide variation in that 30,1% indicated one hour, 19,3% two hours and 50,6% more than two hours, with some considerably more.

Responses to A9B also showed a wide range, 24,1% indicated up to 3 hours contact time, 27,8% 4-6 hours, 19,4% 7-10 hours and 28,7% more than 10 hours, with some of the latter having considerably more.

9.2 Simple CCTV facilities could be used with playback in any venue (81%), of these 47,2% chose improvised classrooms with audio recording as an alternative and the other 32,8% favoured one or two specially designed studios. Only 3,1% favoured a large capital outlay and 13,5% preferred improvised accommodation as no recording was necessary. Responses to A26A,B showed that only 11,8% used two or more colour cameras and 15,6% black/white cameras, whereas A26C showed that 22,2% used live microlessons with no recording. Responses to A25 showed that 38,7% had purpose built studios and 9,7% used external controls in improvised classrooms.

9.3 Regular maintenance and repair facilities must be available (80,9%) and, of these, 43,5% felt that these services must be immediately available. Responses to A32A,B showed that, of those that needed the service, 51,3% had a department technician for maintenance and 54,8% could use a technician from the institution's central services or through an external contractor. The latter are less likely to be immediately available than the former. Faults were corrected promptly, according to 88,5% (A33) and microteaching never had to be abandoned, according to 83,5% (A34).

9.4 Children are desirable but not essential so any expense can be avoided by using peer groups (75,1%) and of these 22,5% felt it was better to use peer groups. However, as previously stated, the responses to A13 showed that only 20,9% had actually used children for all or some of the microlessons. It appears that the cost of using children is not seen as an economic factor, in relation to their transport or supervision, but is more likely to be a matter of convenience in the preparation and planning..

9.5 Opinion was divided between whether the preparation and planning was considerable (31,3%) or whether it was quite straight forward (61,4%) with 36,2% of these feeling that it only

appeared formidable. As already indicated preparation time varied considerably, providing some explanation as to why the responses to Item 9.5 vary. Another related factor could be the size of the group and, as the responses to A4 showed, these varied from 27,9% with groups of 1-10 students, 27,9% with 11-15, 16,9% with 16-20 and 27,2% with groups over 21, including 4,4% with 100 or over. Similarly, a wide variation, from one to ten, was found to the number of microlessons planned for each student (A22), as described following 7.2 above.

6.1.2 Conclusions from the South Africa survey

The use of microteaching in universities and colleges in South Africa had been surveyed by Yule and Steyn using the same questionnaire format as that used by Yule in the United Kingdom. Thirty-four responses from different institutions were received and no distinction was made between the type of initial teacher training course, although the data appeared to refer mainly to a four year initial training course (Yule & Steyn 1982).

In the present study only those universities offering the postgraduate HDE were approached for information, the majority offered the course in one year of full time study, only one offered the course over two years of part time study. In response to the initial request using the Information Questionnaire nine complete returns were received from Heads of Department or Course Directors of the 17 universities contacted. All the universities were contacted by telephone and during the period of the study eight were visited. As a result, 47 completed Organisation Questionnaires were received and 49 Attitude questionnaires. Organisation Questionnaires were received from 15 universities and Attitude questionnaires from 16 universities, the maximum from any one university was twelve (see Appendix 1). Responses indicated that the majority of students for the HDE(PG) were prepared for the secondary school and the majority were experiencing some form of microteaching during their training. Fourteen universities organised microteaching as part of a general organisation for all students, the other three organised it through the secondary method courses. The pattern of organisation showed considerable variation, in that 6 universities made provision for microteaching throughout the whole year whereas 6 other universities confined the microteaching to a few weeks, either as an introductory experience before the initial school teaching practice, in 4 cases, or in between teaching practices.

The following summarizes the findings of the South African responses, the percentages

indicate the proportion who chose that particular opinion on the Attitude Questionnaire or responded to the item on the Organisation Questionnaire. The information is tabulated according to the grouping of the items in the Attitude Questionnaire and the most popular opinion(s) for each item is listed together with any relevant results from the items in the Attitude Questionnaire.

Physical and technical facilities

1.1 Opinion was divided between special room facilities with recording and replay in the same venue (50%), an improvised classroom with recorder in the room (25%) and specially designed studios with separate facilities for playback (21,2%). Responses to A25 showed that 51,2% operated in improvised classrooms only.

1.2 CCTV recording using one camera was adequate (62,7%) and a further 33,3% thought two or more cameras necessary. Responses to A26A,B showed that 22% used only one colour camera and a further 22% used one black/white camera.

1.3 Opinion was divided between no technical assistance needed (13,5%), technical assistance to operate and manage the equipment (32,7%) and more competent assistance to operate and repair any faults (42,3%). Response to A5B showed that 57,9% had technical staff available, but only 9% used technicians to supervise (A16) whereas 40% used them for recording (A27). Responses to A32A showed that 37% had a departmental technician available for maintenance. No one indicated that the use of technicians was not applicable. Other aspects of technicians are discussed under 9.3 in relation to Economic factors.

Preparation for microteaching

Responses to A9A indicated that 44,1% of staff allocated less than three hours to their preparation for microteaching.

2.1 Opinion was divided between students being completely free to choose their own content (38,5%), having a free choice of topics with staff approval (32,7%) and a limited list of topics should be provided (25%).

2.2 Students should plan their own lessons (13,5%), but initially they should be given some direction (76,9%).

2.3 Opinion was divided between a general introduction to skills (36,5%), observation and

identification of skills first before using them (26,9%) and, of these, evaluating their significance as well (30,8%). Responses to A15A showed that 83,7% used lectures as preparation for microteaching. Responses to A7A showed that 42,9% used only one lecture, 22,8% used 2-3 lectures and 34,3% used more than three, of which some used considerably more. The number of microlessons and the size of the student group are also likely to be factors which affect the preparation and both these showed considerable variation, as detailed later in 7.2 and 9.5.

2.4 Opinion was divided between the use of handouts with demonstrations (38,5%) and lectures on the rationale with demonstrations (46,2%). Responses to A15B,C showed that 73,8% used handouts as preparation but only 50% used demonstration lessons.

2.5 Although both students and pupils should benefit, the students need for controlled teaching has priority (66%). As the responses to A13 showed that only 8,7% had actually used children for all or some of the microlessons, this issue is not a particularly crucial one.

Supervision of microteaching

3.1 Tutor supervision and feedback are essential (86,5%). Responses to A16 showed that 80,4% of lecturers supervised microteaching by themselves and the remainder had other assistance as well. Feedback to the student (A18) was provided by the lecturer, the peer group and the student in 67,4% of cases.

3.2 Opinion was divided between the peer group providing the necessary supervision and feedback once they have been shown what is involved (27,5%) or only the supervision without feedback to the individual student (52,9%), even 15,7% thought the peer group could provide neither supervision nor feedback. Responses to A18 showed that peer groups alone were never used. However, A19 showed that 80,4% of discussions on the microlessons occurred with the whole group of students and only 19,5% indicated that individual discussions also took place, either instead of (6,5%) or as well as group discussion (13,0%).

3.3 Opinion was divided between observation schedules being of value for other students to use when viewing lessons (31,3%) and of value for the individual to use when assessing their own playbacks (47,9%). Responses to A17 showed that 46,7% sometimes used observation schedules and a further 42,2% always used them.

3.4 Opinion was divided between the use of informal assessment (39,2%) and the use of formal assessment (43,1%), including 23,5% who felt that the mark for microteaching should be included

in the overall practice teaching mark. One person who did this qualified his response by adding 'No true assessment - a mark is eventually allocated which is added to the Practice Teaching mark.' Responses to A29 showed that 66,7% used an informal assessment and 20% a formal assessment. Of those assessing microteaching 33% chose to do it globally and 66% chose to do it for each individual lesson, as shown by responses to A30 and A31.

Reteach lessons

The responses to A21 showed that only 2,2% always used reteach lessons and 53,3% of staff sometimes used them.

4.1 Opinions were divided between reteach lessons were not necessary (25%), but if used must be planned for soon after the initial lesson (40,4%) or immediately after the 'teach' lesson has been viewed and discussed (25%).

4.2 Reteach lessons should be optional or at the discretion of the tutor (66,7%) but not really necessary (15,7%).

4.3 Opinions were divided between reteach lessons being of limited value and should be kept to a minimum (59,6%) and being very valuable for reinforcing teaching skills (36,5%).

Immediate objectives

5.1 Opinion was divided between an introduction to classroom teaching with some opportunity to practise specific skills (65,4%) and a deliberate attempt to modify student behaviour in relation to certain specific skills (30,3%).

5.2 Supportive to students (65,4%), but opinion was divided over whether additional skills could be acquired (26,9%) or certain behaviour modifications should be expected (38,5%) and 26,9% indicated that they felt that certain behaviour modifications must occur.

5.3 Microteaching provides students with the opportunity to practise specific teaching skills (90,2%), but 33,3% thought it was not possible for them to be validly assessed.

Effects of microteaching on students

6.1 Students, as a result of microteaching, see teaching as an intellectually demanding job which requires a range of distinctive professional skills (87,3%). The range of skills identified are included in section 4.25 of Chapter 4.

6.2 Opinion was divided between the relevance to students of microteaching when seen as an introduction to a school experience (67,3%) and those that felt it was a good substitute for classroom teaching (26,9%).

6.3 The confidence of students is increased (98,0%) but of these 41,2% felt that it might undermine the confidence of some.

6.4 The analytic prescriptive approach does not affect the need for creativity and originality (45,1%), with some of these feeling that creativity is encouraged (35,3%), but others feel that there is likely to be conflict but not significantly at this stage (19,6%).

Philosophical factors

7.1 Students benefit from the cosmetic experience of seeing and hearing themselves (96,0%).

Responses from A26A,B,C indicate that 44,4% used colour television, 60,0% black/white and 22,2% audio recording.

7.2 Microteaching has value as a preparation for classroom teaching and should precede the school practice (94,2%). Responses to A28A to D showed that 84,4% used microteaching before school teaching practice, 35,6% in between, 15,6% after, 2,2% during and 2,2% to replace teaching practice. The number of microlessons (A22) for each student was one (23,9%) or two (13,0%) with none indicating more than five. It appears that the opportunity for either a skills approach or behavioural modification is extremely limited in the circumstances and that the comments from the Attitude questionnaire are not as significant as they first appear bearing in mind the particular importance attached to behaviour modification, viz.

7.3 Although of value for practising teaching skills (93,1%), of these 59,6% felt that the skills were learnt.

7.4 Microteaching has value as a means for behaviour modification (96,2%) but 75,0% felt that it might interfere with the effectiveness of a student's own teaching style.

Relation of microteaching to other courses

Responses identifying the subject area of the staff responsible indicated that 47,3% were not in a particular subject area, just over half of the responses came from subject method tutors and of these 30,4% represented the Language group. The placing of microteaching in education course, particularly General Method or Didactics, is shown to be the pattern in many

South African universities (see Appendix 1.5). Hence, it is not surprising that a close relation is seen between microteaching and the theoretical education courses, as indicated by:

8.1 Microteaching does establish a relationship between the skills of teaching and psychological theory (90,2%).

8.2 Opinion was divided between the application of educational sociology to the practice of microteaching being not particularly significant (40,8%) and giving real meaning to the educational sociology as students are able to practise what the course preaches (51,0%).

8.3 Opinion was divided between microteaching being useful when related to those courses preparing the student for practical teaching (51,9%) and when related to all other courses theoretical and practical (28,8%).

Economic factors

9.1 Opinion was divided over whether microteaching was no more expensive on lecturer's time (40,4%) or whether it was expensive (50%) with 34,6% feeling that more economical use could be made of group discussion. Responses to A9A showed a wide variation in hours of preparation, in that 17,6% indicated one hour, 26,5% two hours and 55,9% more than two hours, with some considerably more - upto 30 hours. Responses to A9B also showed a wide range for staff contact time with students, 25,8% indicated up to 3 hours contact time, 28,6% 4-6 hours, 14,3% 7-10 hours and 31,4% more than 10 hours, with some of the latter having considerably more - over 100 hours.

9.2 Simple CCTV facilities could be used with playback in any venue (86,5%), of these 44,2% chose improvised classrooms with audio recording as an alternative and the other 42,3% favoured one or two specially designed studios. No one felt that it could be organised in improvised accommodation as recording was not necessary but 18,7% felt that a large capital outlay was necessary. Responses to A26A,B showed that 22,2% used two or more colour cameras and 37,8% black/white cameras, whereas A26C showed that only 4,4% used live microlessons with no recording. Responses to A25 showed that 41,9% had purpose built studios and 11% used external controls in improvised classrooms.

9.3 Regular maintenance and repair facilities must be available (86,6%) and, of these, 48,0% felt that these services must be immediately available. Responses to A32A,B showed that, 37,0% had a department technician for maintenance and 71,1% could use a technician from the

institution's central services or through an external contractor. The latter are less likely to be immediately available than the former. No one indicated that the need for a technician was not applicable. Faults were corrected promptly, according to 76,8% (A33) and microteaching never had to be abandoned, according to 58,7% (A34).

9.4 Children are desirable but not essential so any expense can be avoided by using peer groups (86,6%) and of these 23,1% felt it was better to use peer groups. However, as previously stated, the responses to A13 showed that only 8,7% had actually used children for all or some of the microlessons. It appears that the cost of using children is not seen as an economic factor, in relation to their transport or supervision, but is more likely to be a matter of convenience in the preparation and planning..

9.5 Opinion was divided between whether the preparation and planning was considerable (38,5%) or whether it was quite straight forward (59,6%) with 51,9% of these feeling that it only appeared formidable. As already indicated preparation time varied considerably, providing some explanation as to why the responses to Item 9.5 vary. Another related factor could be the size of the group and, as the responses to A4 showed, these varied from 27,9% with groups of 1-10 students, 7,0% with 11-15, 2,3% with 16-20 and 62,8% with groups over 21, including 32,6% with 100 or over. Similarly, a wide variation, from one to five, was found to the number of microlessons planned for each student (A22), as described following 7.2 above.

1.3 Comparison between microteaching in the United Kingdom and South Africa

The study has identified many differences in opinion and practice between the United Kingdom and South Africa. Attention has already been drawn (Chapter 1) to the different approach to postgraduate teacher education in the United Kingdom following the James Report in 1972, whereas the publication in South Africa of the Criteria tended towards a more conservative stance by consolidating the traditional curriculum. It is interesting to note that after the radical review of the postgraduate teacher training curriculum, the DES in the United Kingdom, through a system of accreditation, is now creating a mechanism for entrenching, not the old traditional academic pattern of teacher training, but new and innovative curricula, emphasizing the professional, practical and school-based. The indications are that the differences are connected with the different fundamental views of the nature of postgraduate

teacher training, a factor more usefully explored in section 6.1.4.

Another significant difference between postgraduate teacher training in the two nations is the importance attached to General Methods or Didactics in the South African situation. In many ways it has many advantages for offering component courses in the use of audio visual aids, librarianship and microteaching based on a teaching skills approach. It has the disadvantage in that it attempts to teach the use of teaching methods without linking them with any particular subject content. It appears to be part of the campus-based philosophy of teacher training and is an extension of the analytic scientific approach to education research and training that has received much criticism recently, as it appears to have little benefits for the kind of teaching that actually goes on in the classroom and the kind that teachers would value. Further details of this debate have been amplified in Chapter 1.

Reference to the data from the different institutions, as recorded in Appendix 1.5, shows that a much longer time is spent in schools in the United Kingdom than is so in South Africa. At present a postgraduate teacher training course in the United Kingdom, in order to be recognised for Qualified teacher status, must have 12 to 15 weeks of school teaching practice. As indicated in Chapter 1 most courses include a regular once a week school experience as well as the long blocks of teaching practice. South African universities offer from 4 to 9 weeks only. This important issue will again be referred to in the next section.

It is appropriate to examine the two detailed surveys and to describe and comment on the differences which have been identified, the similarities will not be described, as this would involve further repetition of details already described in the previous sections. The same procedure will be adopted as has been used in the previous sections, the detailed comparison will be presented according to the section used in the Attitude questionnaire.

Physical and technical facilities

South African responses attached greater importance than did the United Kingdom to the need for specially designed studios (Item 1.1) to the use of two or more cameras, (Item 1.2) and to more competent technical assistance (Item 1.3). In spite of the more recent introduction of microteaching into many South African institutions, there was evidence of less use of improvised accommodation for microteaching and many universities indicated that specially designed studios were being completed or were anticipated. This emphasis on specially designed

sophisticated facilities for microteaching may explain why more use is made of black/white television in South Africa than in the United Kingdom. Expensive capital development when asked for must be used. As part of the rapidly developing electronics industry, television and the use of video is improving so fast that whole systems quickly become outdated. In spite of the need for more competent technical assistance, there was little difference in the way that technicians were used, but the evidence suggests that there are fewer technicians available in South African university departments and that there have been more problems in staff operating video equipment.

Preparation for microteaching

Few items or responses showed any significant differences. South African universities tended to provide more freedom and less help for the student in choosing the content for microlessons (Item 2.1) but tended to provide more background to teaching skills before the microlessons were given (Item 2.3). More importance was attached to the use of lectures on the rationale of microteaching skills (Item 2.4). Organisation responses showed that less use was made of demonstration lessons of the skills to be used in microlessons and, even, less use appeared to be made of children as pupils for microlessons.

Supervision of microteaching

South African universities attached less importance to peer group supervision (Item 3.2), placed more value on the use of observation schedules (Item 3.3) and were more divided over the issue of assessment (Item 3.4), in that although importance was attached to formal assessment by some, another group were against any form of assessment of microteaching. The organisation responses showed that in no cases were peer groups supervising microlessons by themselves, although greater use was made of group discussion, rather than individual discussion, during the microteaching. The greater use of observation schedules and of formal assessment was also confirmed.

Reteach lessons

South African universities attached a greater importance to the use of reteach lessons than United Kingdom institutions, in that they emphasised the need for planning (Item 4.1) and

attached more value to the reteach cycle (Item 4.3). Fewer South African staff did not use reteach lessons and more used them sometimes.

Immediate objectives

Although similar emphasis was placed on the practising of teaching skills, greater attention was given by South African universities to behavioural modification (Items 5.1, 5.2).

Effects of microteaching on students

South African universities, in some cases, considered microteaching as a possible substitute for teaching practice (Item 6.2). They had less doubt about the confidence that students gained (Item 6.3) and were more supportive of creativity and originality aspects of microteaching (Item 6.4).

Philosophical factors

More value was placed on the learning of skills as opposed to the mere practice of them (Item 7.3) and again more attention was given to the behavioural modification aspects of microteaching (Item 7.4). In showing similar support for the cosmetic effect of microteaching, South African universities were seen to be making greater use of black/white video recording than in the United Kingdom. In the same way they showed similar support for the introductory value of microteaching for classroom teaching, less use was made of microteaching during teaching practice, even though it was fairly minimal in the United Kingdom. Fewer South African universities planned for only one or two microlessons for each student, none used more than five, as was sometimes found in United Kingdom institutions.

Relation of microteaching to other courses

A much higher proportion of completed returns (almost 50%) came from Education staff in the case of South African universities. The general organisation of microteaching, as opposed to the subject method approach in the United Kingdom, has already been mentioned. South African universities indicated stronger relationships between microteaching and educational psychology (Item 8.1), educational sociology (Item 8.2) and education theory courses generally (Item 8.3).

Economic factors

South African universities showed that they were more in favour of group discussion to relieve staff time (Item 9.1), this was supported by the greater use of group discussions. Longer hours of preparation were indicated. South African responses tended to favour a need for a greater capital outlay and were less in favour of improvised facilities (Item 9.2) and the organisation responses showed more use of two camera systems and less use of live microlessons than in the United Kingdom. South African tutors mentioned that specially designed facilities were being completed or anticipated whereas there was no mention of such developments in the United Kingdom, even though they appeared to have a similar proportion of purpose built studios already. Although equal in the responses for the need for competent technical assistance, South African universities appear to have fewer departmental technicians, especially when compared with United Kingdom universities, and appeared to make more use of a central or outside service. More problems were experienced in the preparation and planning for microteaching in South Africa (Item 9.5), which may be due to the significantly larger groups of students organised for microteaching and to the tendency to plan for three to five microlessons, not the one or two, or even the larger numbers, of some United Kingdom institutions.

The Stanford model, through the Stirling influence, appears to have had a very marked effect in South Africa, whereas a larger proportion of institutions in the United Kingdom have not been influenced by it but appear to have created their own idiosyncratic approach to microteaching.

It appears that South African postgraduate teacher education has attached much greater value to microteaching than its United Kingdom counterpart. Not only are the responses to the Attitude Questionnaire less critical and more favourably disposed to microteaching in all its aspects, but there is a much greater capital outlay in the provision of specially designed studios and sophisticated facilities.

6.1.4 Identification of factors affecting the use of microteaching

The study has identified a number of factors which appear to affect whether microteaching is used and, if so, the way it is used.

1. Subject method v education organisation

When the United Kingdom responses to the Organisation Questionnaire (A4 to A35) were examined for significant differences among the subject groups (SUBJGP) using SPSS Crosstabs and Statistic 1, Chi-square, among some predictable differences a few others were identified suggesting that the subject area might be an important factor. As could be anticipated, the responses to A5B showed that Science staff made greater (40,8%) use of technical assistance than those from other subject groups (approximately 15%), the difference being significant (at the ,0453 level). Science and Education tended to use longer sessions for microlessons than the other groups (at the ,0580* level). Education staff were more likely to be operating with mixed subject groups than those from the other subject groups (at the ,0000 level) and Education were more likely to make use of children (at the ,0144 level). The responses to A16 showed that Education staff were more likely (50%) to supervise microteaching with some assistance, whereas for the majority of the other groups lecturers supervised alone. This was particularly the case for the Language group (90,9%) and less true for the Science (66,7%), the difference was significant (at the ,0470 level). Responses to A17 showed that Education staff were more likely to make use of observation schedules, 62,5% 'Sometimes' and 31,3% 'Always', and those groups indicating 'Never' were Language (50%), Science (44,7%) and Miscellaneous (40,7%). The difference was significant (at the ,0132* level). Education staff were more likely (73,3%) to make use of reteach lessons and Science staff were the least likely (23,1%), the difference being significant (at the ,0120 level). The responses to A26C indicated that Education staff made the most (37,5%) use of audio recording and the Language staff made the most (40,9%) use of 'live' microlessons, the majority of staff not using either, particularly the Social Studies (87,5%) and Science (73,7%). The difference was significant (at the ,0015* level). Education staff were less, 43,8% as compared with 74,6%, likely to use microteaching before school teaching practice (at the ,0081 level) and more likely, 50% as compared with 29,4%, to be using microteaching in between teaching practices (at the ,0110 level).

The main differences appeared to lie between microteaching organised and supervised by Education staff and microteaching as part of a subject method course. The former appeared more likely to operate a form of microteaching closer to the Stanford model, including, as well as reteach lessons, observation schedules, use of children in the longer period available between teaching practices as indicated above, but also lecture, handout and demonstration preparation,

discussion after playback, more than two microlessons for each student, more sophisticated black/white television and an assessment both specific and global, even though these aspects were not statistically significant.

2. Factor analysis of Attitude items

Factor analysis of the responses for the four different types of institution to the thirty four attitude items was carried out using SPSS FACTOR, the procedure and detailed results are recorded in Appendix 3.2. A detailed description of the Factors as identified for the United Kingdom universities, polytechnics and colleges is included and a comparison made with those Factors identified for South African universities. Attention is drawn in this section to the different types of course organisation. United Kingdom universities tend to operate as a number of small subject method course within the overall PGCE framework. Because each subject tutor is relatively independent in selecting students, organising the majority of the course and supervising the school experience and block teaching practices, there does not appear to be the course unity that appeared to exist in the polytechnics and colleges and in the South African universities. Education in the polytechnics was more centred around the PGCE, it tended in the colleges to be composed of a comparatively small group dwarfed by the four year Bachelor of Education students. Regular submission of course structures, for validation by the Council for National Academic Awards (CNAA), could also contribute to the cohesiveness of the course structure in the case of polytechnics and, to a lesser extent, colleges, the latter sometimes being validated by a local university. In general terms the study identifies the broad factor of the total course and the way it is organised in the institution.

In particular the Factors show the different emphases of the different types of institution. It is apparent that, to different extents, the same aspects of microteaching, as identified in the Attitude items, contribute significantly to the major Factors in each type of institution. Philosophical aspects (7.1 to 7.4) and immediate objectives (5.1 to 5.3), both concerned with why microteaching is used, appear to be important, as do the relations to other courses (8.1 to 8.3). The need for student preparation (2.3, 2.4) also contributes, as does the attitude towards the use of reteach lessons (4.1 to 4.3), even though few staff make full use of reteach lessons. The use of peer groups for supervision and feedback (3.3) appears

significant and, in the case of South African universities the role of assessment. Physical facilities (1.1 to 1.3) are in Factor I for colleges, Factor II for poltechnics and in Factor III for both sets of universities. Economic aspects (9.1 to 9.5), although dealing with very different costs (staff contact time, facilities, maintenance, transport and preparation time) appear to receive equal mention but are more commonly found in Factors II and III, depending upon the type of institution.

3. School-based v campus-based teacher training

The most significant factor which has arisen out of the total exercise of analysing the data obtained in the United Kingdom and South Africa is the underlying philosophical approach to teacher training. The developments of teacher training in the United Kingdom in recent years have highlighted the change in the underlying philosophy. The traditional college-based model and the innovative school-based model of teacher training have been described and compared in Chapter 1. The place of microteaching in teacher training has also been examined in Chapter 2, following a discussion on the criticism levelled at the value of much of the traditional research into education and the need for a different approach, which could be of more use to the practising teachers. This has now been brought into focus by comparing the use of microteaching in a more traditional teacher training atmosphere like South Africa and the comparatively radical post-James situation in the United Kingdom. The crux of the issue seems to be, that, if teacher training is seen as an activity that takes place on a college campus and consists largely of lecture, tutorial and seminar activities leading to formal written examinations, then microteaching is an exciting innovation and has a lot to offer, whether it is live or recorded, involves real children or peer groups, is a global teaching activity or concerned with specific skills. On the other hand, if teacher training is seen to take place in a school environment, with the student working alongside interested and cooperative practitioners, involved in, what are seen as real issues and problems with real classes of real children, then microteaching appears limited by its artificiality, which in the traditional approach to teacher training is its real strength.

6.2 IMPLICATIONS ARISING FROM THE INVESTIGATION

There is a great need in teacher training for an interchange of information about the nature of courses among the staff involved. Much of the success of this study has depended upon the various staff members who were prepared to communicate details about what they were doing and thinking in relation to their courses. This information was obtained through structured questionnaires, through detailed descriptions and comments, by visits and personal contact. The reports of the surveys and the analysis of the data, showing the types of organisation used and the attitudes of staff members towards the different aspects of microteaching, should be of assistance in helping those involved in teacher training to analyse their own microteaching courses and help them to explore alternative approaches.

6.2.1 Implications for teacher training

Although the study is concerned with the factors affecting the use of microteaching in post-graduate teacher training, in order to achieve this, it has been necessary to examine the framework in which microteaching is offered i.e. the total curriculum of post-graduate teacher training. The comparison between the courses as offered in the United Kingdom and in South Africa have highlighted certain differences, which draw attention to the need to look at these courses within an even broader framework, i.e. the national, social and political frameworks of their total education policies as they have evolved and as they appear to be evolving in the light of present evidence. This comparison across two distinct national, social and political education structures has the advantage of turning a study based on evidence collected in the present into a study with a time perspective, since changes implemented in the United Kingdom are eventually, after a number of years and possibly with some modification, introduced into the South African system. In other words the system as it has evolved in the United Kingdom is likely to suggest the way the system is, and possibly will be, evolving in South Africa. In order to do justice to this argument it is necessary to examine certain developments in the two national systems of education, the influence of the curriculum development movements taking into account how they relate to the total social and political situations in which they operate, the effect on teacher training of changes in the school curricula, and the problems of

curriculum evaluation.

Overview of the developments in United Kingdom education

In the United Kingdom the foundation for universal elementary education was laid by the 1870 Act and instituted two systems viz. the existing grammar and public schools, and the elementary schools of the state system. These two systems operated until the 1944 Act when, with the provision of secondary education for all, a tripartite system of grammar, technical and secondary modern state education was introduced leading to the multi-lateral and comprehensive systems of more recent times. These different systems operated through different curricula which were controlled to varying degrees by three distinct bodies, the state with its Inspectors, the local authority through the governors and other advisors, and the teachers as individuals and as a professional body. The control of education and of the curriculum was a very complex issue due to changes in the balance between the contributing parties. Lawton has examined in great detail the changing pattern of curricula decision-making in the United Kingdom and commented on the influence of social change and educational theory on curriculum planning (Lawton 1973) and on the influence of class and culture on the curriculum (Lawton 1975). It is sufficient in this context to draw attention to a few of the points that he makes about curriculum control in the early stages, which show the different relations which existed between central government and the different classes which developed within the system:

"Elementary school teachers, in the nineteenth century fought against rigid central control of the curriculum and succeeded in the twentieth century in shaking off this control almost completely."

(Lawton 1980: 13)

"One of the myths about secondary education in England is that there is a long tradition of teacher control over the curriculum.....even in Elizabethan times the curriculum of grammar schools had been subject to close government scrutiny and interference. More recently there was strict control of the secondary curriculum from 1902 until secondary regulations were superseded by the 1944 Education Act."

(Lawton 1980: 13)

Elementary Regulations were abolished in 1926 and Secondary Regulations were made obsolete by

the 1944 Act, diminishing the authority of central government. However, the partnership between the Department of Education and Science (DES), the Local Education Authorities (LEAs) and the teachers, which implied a satisfaction and trust in spite of the struggles that existed, has been replaced since the 1970's by the concept of accountability, implying dissatisfaction and distrust. Lawton identifies, and expresses concern about, 'the growing power of the mandarins', who consist of

"HMI's and civil servants, sharing similar social and educational backgrounds, (who) tend to make the same kind of assumptions, and tend to possess similar beliefs, ideologies and obsolete theories."

(Lawton 1980: 28)

In particular the policy of accountability is being imposed by the DES through the Assessment of Performance Unit (APU), which now constitutes a national testing agency concerned with educational standards. Other recent moves by the DES relate to the part played by the Schools Council for Curriculum and Examinations (SCCE), a body constituted in 1964 in which teachers were given a majority representation, which was criticised in the early seventies for being too progressive and too teacher dominated and, following a review in 1978, now has its financial control firmly under DES and LEA responsibility. Similarly the Secondary Schools Examination Council (SSEC) established in 1917 with the universities playing a dominant part, has had its responsibilities incorporated into the Schools Council. The university role in external school examinations has diminished over the years and teachers have increased their influence over the detailed operation of the examinations by their representation on Examination Boards. But, with the shift in the power structure in the Schools Council, the ultimate control over policy decisions now lies with the officials of the DES. Examples of teacher influence over external examinations are the replacement in 1951 of the group examination of the School Certificate by the single-subject type of examination of the General Certificate of Education (GCE) and the establishment in 1965 of the Certificate of Secondary Education (CSE) with the opportunity for much greater control of the curriculum by teachers through the use of Modes 2 and 3 type examinations. This period also saw a much greater emphasis on the teacher as a professional person. Teaching was no longer seen as a vocation or a dedication. The power of teachers' organisations developed in the post war period as part of the democratic labour movement seeking better conditions for its members and representation in the education decision-making

process. Any advantages, that were gained in this way at the expense of the status of the teacher as seen by society, now appear to have been lost.

The struggle between the three partners involved in the control and decision-making policies during the first part of the twentieth century in the United Kingdom is also reflected in the continuing debate between the progressives and the idealists in education, in which the teachers, particularly the professional associations, represented the progressive view and central and local government the idealist.

"Progressives are said to see education in terms of growth, to see teaching as child-centred rather than subject-centred, and to see the curriculum as an inter-disciplinary one, based on the needs and interests of children....On the other hand, idealists are supposed to see education in terms of acquiring knowledge, to see teaching in terms of initiating pupils into traditional culture, and to see the curriculum organized to transmit an understanding of established disciplines..."

(Lawton 1975: 7)

Progressives and idealists may be seen as the extreme ends of a continuum, with possibly realism linking the two since both progressives and idealists appeal to reality, as they see it from their different standpoints for support for their line of argument. The importance attached to disciplines in education relates the idealists to the conservative forces in society and there are many arguments in favour of them. The school curriculum must be expressed within some kind of approved convention or framework. The advantage of using disciplines to describe a curriculum is that identifiable standards are built into the structure and the knowledge, methods and rules of procedure are shared by those who practise the discipline (Stenhouse 1975). In addition, Lawton argues that reality is made more meaningful by means of disciplines. Different disciplines are important because they look at reality in different ways. There is some relationship between disciplines and human mental structure and there is some evidence that discipline-structures aid learning, but even so "disciplines should be used in planning a curriculum, not that the curriculum should be discipline-centred" (Lawton 1975: 82). This distinction clarifies the use of disciplines in identifying inter-disciplinary enquiry in a progressive curriculum and the discipline-centred curriculum of the idealist. The progressivists view of reality tends to allow for different

perspectives and consequently they adopt a more flexible approach, seeing education as involving change and to be more child-centred.

The system of education that operated in the schools of the United Kingdom in the first half of the twentieth century can be described as autocratic, elitist, comparatively static, one which reflected and maintained the existing class structure and based on the idealist view of education. The 1870 Education Act did not achieve the completely secular, national system of compulsory, free education desired by the progressives. H.G.Wells described it as:

"Not an Act for a common universal education, it was an Act to educate the lower classes for employment on lower class lines, and with specially trained, inferior teachers."

(Wells 1934: 93)

The class system was maintained by applying selection procedures and supported the idealist's view of education, with secondary and elementary schools operating on different curricula aimed at leadership and followership respectively. Both curricula can be seen as discipline-centred whether they are based on latin, science, language and mathematics etc. or on reading, writing and arithmetic.

The 1944 Education Act heralded a new era for education in the United Kingdom. Instead of being autocratic and elitist, education was now to be more democratic and more egalitarian. However, in its attempt to cater for individual needs and interests, the resultant tripartite system of secondary education based on selection due to ability and effort was more meritocratic than democratic. True democracy in a free society should provide a better quality of life for all. Preferential treatment based on ability is no fairer than that based on wealth (Young 1958). Hence, during the third quarter of the twentieth century, there have been progressive movements towards greater equality of opportunity for all, as in the establishment of non-selective comprehensive education by labour governments and LEAs. Initially greater use was made of streaming according to a pupil's particular abilities and in more recent times mixed ability classes have become more general. At the same time, in order to cater for a wider range of abilities, the curriculum was broadened to accommodate more optional and vocational courses, at the expense of achieving the basic literacy and numeracy emphasised previously. Curriculum reform and development became the norm at all levels of school education.

The swing towards progressivism that took place after the 1944 Act due to the influence of teacher organisations has now been replaced by a swing back towards idealism as reflected in the policy decisions of the DES. In order to examine the significance of these trends it is necessary to look at the way techniques used in curriculum evaluation have developed. Lawton maintains that the choice of any particular form of evaluation is in itself a political decision. Evaluation, as "...the process of applying a set of standards to a programme, making judgements using the standards and justifying the standards and their application" (House 1973: 3), is based on a model with certain kinds of built-in assumptions, whether measurement is involved or not. The older well-established statistical models, as used in agricultural-botanical research and industrial research and development, are both considered unsuitable in education because of the assumptions that have to be made. The former is concerned with the measurement of anything that is easily quantifiable and does not take into account the complexity of the teaching-learning situation. Human beings are more complex than cabbages. Variables cannot be identified as easily in the classroom as in the field and cannot be controlled as easily. The observation act itself is more likely to contribute to the results as a further uncontrollable factor. Similarly, the industrial research and development model is based on the false assumptions that all education outcomes can be translated into behavioural objectives and that all changes of behaviour can be measured. In both models sampling cannot be achieved with any degree of success and both use a reductionist technique which fails to examine the wholeness of the situation in question. The illuminative evaluation model based on the methodology of social anthropology (see Chapter 2.3) explores more qualitative forms of assessment and, although it provides a means of describing the full picture of an evaluation situation, there is a danger of personal, subjective impressions being put forward as objective data (Lawton 1980). An adaptation of the illuminative model is the teacher as researcher model proposed by Stenhouse as an alternative to the objectives and process models of the curriculum (Stenhouse 1975). In this case the teacher becomes a professional involved in research-based teaching with the emphasis on self-evaluation. As for the illuminative model objectivity is likely to be a problem, with the additional problem which arises out of the conflict of roles between the teacher as curriculum innovator and the teacher as participant observer and evaluator. MacDonald's political model of evaluating curricula attempts to identify and collect the information and judgements on which decisions can be made,

taking into account the total context of the educational programme (MacDonald & Walker 1976). Three ideal types of political evaluation can be identified: the bureaucratic, in which the evaluator plays the role of a management consultant; the autocratic, in which the evaluator's role is that of expert advisor who makes the final decision; the democratic, in which the evaluator acts as an honest broker to the whole community. The use of a case-study model of evaluation is one which can embrace the holistic impressions of the illuminative model with the conventional 'hard data' of the statistical approaches without the problem of controlling variables or of selecting representative samples. Hence, a variety of techniques and strategies are now at the disposal of the curriculum evaluator. Evaluation is not seen as merely the measurement of quantifiable behaviour either in control and experimental groups or by the use of pre- and post-tests. Lawton expressed concern that in the United Kingdom the DES through its policy of accountability in education as operated by the Assessment of Performance Unit was basing its decision-making policy on "obsolete theories....the result of that kind of 'common sense' set of shared assumptions rather than a carefully formulated theoretical viewpoint" (Lawton 1980: 29).

"The DES/APU is moving towards a dangerously obsolete model of evaluation."

(Lawton 1980: 131)

"In a democratic society it is not only important that there should be a worthwhile common curriculum; it is also important that the machinery for curriculum development and change should be appropriately controlled, and that this shared control can be seen to be fair and appropriate by all those who have a legitimate interest in it."

(Lawton 1980: 139)

Lawton deplores the 'secret' decision-making, whether it be by teachers based on their professional expertise or the DES based on its bureaucratic power. There is a need for an open partnership in the solving of all problems associated with curriculum planning.

From 1870 to the period following the 1944 Education Act, the school education system in the United Kingdom evolved in directions which can be clearly related to a more democratic, progressive approach. Although these changes in the schools, which supplied the students, had implications for the whole structure of Higher Education, teacher training courses were likely to be affected not only by innovations in their own curricula but, in addition, by the

curriculum innovations in the schools for which the students were now being prepared. The autocratic, elitist system of grammar and elementary schools enshrined in the implementation of the 1870 Education Act had been mirrored by a similar teacher training structure. Universities were responsible for the education of teachers for the secondary grammar schools. Initially an academic degree was considered sufficient as a teaching qualification, but with the establishment of university departments of education (UDEs) a professional certificate became increasingly important before it was eventually made compulsory in 1973. In the same way that the new grammar schools had been cast in the mould of the established and successful public schools, the new UDEs tended to follow the successful academic pattern of related departments established in other faculties. Prospective secondary teachers followed courses in those academic disciplines similar to the disciplines in the grammar school curriculum. Elementary school teachers were trained in special monotechnic institutions, in order to make them proficient in teaching the basic skills of reading, writing and arithmetic; hence, H.G.Wells' reference to the "specially trained inferior teachers" (Wells 1934: 93). Following the 1944 Education Act, with the introduction of universal secondary education and the establishment of the tripartite system of grammar, technical and secondary modern schools, teacher training colleges became colleges of education. In the same way that the new secondary modern schools tended to copy the organisation and curriculum of the established grammar schools with their emphasis on a variety of academic disciplines, the colleges of education tended to follow the university type of curricula, in that Main Courses (and later Advanced Main) were introduced for the student's own academic progress. Teaching in the basic skills was supplemented by courses and components from the education disciplines found in UDEs, viz. philosophy, psychology, sociology, history, comparative, etc. As comprehensivisation of the secondary schools introduced greater equality of educational opportunity, the colleges of education and universities moved closer to each other with the introduction in 1968 of the Bachelor of Education as the first teaching degree followed by the move to an all graduate profession. The secondary curriculum expanded in the range of school subjects offered for grammar, technical and secondary modern schools, so that some of the developing comprehensive and multi-lateral schools were able to offer curriculum choices including French, German, Spanish, Russian, Latin, Greek, Classical Studies, Economics, Physics, Chemistry, Botany, Zoology (and the various science combinations), together with Woodwork, Metalwork, Technical Drawing, Home

Economics, Needlework, Accounting. As greater flexibility was introduced into the secondary system to enable children to transfer from academic to non-academic streams and vice versa, colleges and universities introduced courses which catered for the needs of teachers at the different levels. Graduates were able to follow their education courses in colleges of education and special courses were offered by universities to prepare graduates to teach at less academic levels in primary and different types of secondary schools. The expansion of comprehensive education meant that universities could no longer concentrate realistically on the preparation of graduates to teach in grammar schools. The various curricula experiments, such as team teaching, integrated studies and mixed ability classes, in the school system have had their repercussions at all levels of teacher training and especially on the UDEs offering the PGCE.

In 1976 the percentage of schools having a mixed ability organisation seemed to be escalating (DES 1978). It is reported that:

"In the mid-1970s, 90% of Nottingham PGCE students launched upon the schools as probationers each September would have entered selective schools and many would have taught sixth formers during their probationary year. By 1979, ninety per cent of these probationers find placements in comprehensive schools and handle mixed ability classes in their first few weeks."

(Alexander & Whitaker 1980: 42)

In 1976, a Teacher Education Project, based on Nottingham and Leicester Universities, was funded by the DES to experiment with training materials and methods in the PGCE course. The project operated on seven broad fronts in identifying these materials and methods:

1. Class management and control.
2. Mixed ability teaching.
3. Fast learners.
4. Slow learners.
5. Questioning skills.
6. Explaining skills.
7. Language across the curriculum.

As can be seen, the project identified very different issues from those associated with the traditional teacher training curriculum with its emphasis on the academic education disciplines

(Alexander & Whitaker 1980). A further project, funded by the DES in 1979 and already referred to in Chapter 1.2, carried out research into 'The Structure and Process of Initial Teacher Education within universities in England and Wales' (SPITE) in order to find out what was actually happening in PGCE courses (Patrick et al 1982).

The last ten years have seen various moves by the DES to control, what might be seen as, some of the excesses of the curriculum reform movements in the United Kingdom. The autonomy of the various independent bodies in the national education system, such as universities, examination boards, teachers' unions etc., is now being challenged by the policy laid down by the DES. It is interesting to note, however, that the area which attracted public concern much later than any other i.e. teacher training, had maintained its traditional curriculum from the 1920s until the publication of the report of the James commission in 1972. It is particularly interesting to note that the policy of the DES in this area of teacher training tends to be radical and innovative, whereas in the other areas the DES appeared to exert a more conservative, traditional policy to counter the excesses of the radical teacher motivated innovations. It would appear that the relatively static nature of teacher training courses prior to 1970 did not adjust to the changed situation in the nation's schools. There was a need to train teachers for the reality that existed in the state schools and not for a system that might have existed in the memories and experience of those responsible for teacher training courses or for a system that should exist in a fully 'democratic' society. The accreditation of teacher training institutions by the DES, in order that they might be recognised for Qualified Teacher status, is the latest development in the central control of the teacher training curriculum and has been described in Chapter 1.2. The new policy combines aspects of the traditional academic approach with that of the teacher apprentice. It would appear that the essential qualities necessary for staff involved in teacher training should consist of:

1. Authority in an academic education discipline.
2. Ability to pursue educational research.
3. Adult education skills, to handle students.
4. Recent and on-going classroom experience.

Whereas the control of the school curriculum in the United Kingdom could be seen to

involve three partners: the central authority (DES), the local authorities (LEAs) and the teachers, the control of the teacher training curriculum involved:

1. The central authority (DES),
2. The private, church and local authorities responsible for the staff and physical facilities in the colleges,
3. The university departments and institutes of education,
4. The professional teaching bodies such as the National Union of Teachers (NUT), the Assistant Masters Association (AMA) and the, more recent, Schoolmasters Association (SMA) and
5. The teacher trainers, as individuals and through their own professional organisation i.e. the Association of Teachers in Colleges and Departments of Education (ATCDE).

As the shifts in the power structure of the partners who controlled the school curriculum affected the schools, the situation in teaching training was more complex. In the initial period up to the 1944 Education Act, universities, through their own tutors, controlled the curriculum for graduate teachers and the various local authorities controlled the colleges in partnership with the central authority, i.e. the Ministry of Education prior to the establishment of the DES, and the teacher trainers. The professional body of teachers was divided, only the AMA operated effectively as a representative body for graduate teachers and tended to give its support to the conservative practices of the universities. Following the 1944 Education Act, the McNair Report recommended the formation of fourteen university Area Training Organisations (ATOs). Hence, through the development of Institutes of Education, the universities were able to exert an even wider authority to include the newly established Colleges of Education, which replaced the old Teacher Training Colleges. This increase in the power and authority of the traditional university is an interesting development bearing in mind the changes to come, viz. the increasing emphasis on equality and democratization in education, the increase in professionalism in teachers organisations (especially the NUT and SMA) and among teacher trainers (ATCDE) and the continuing influence of the progressive movements in education. It is worth noting that the system of staff members from one college serving as external examiners in another contributed towards some sort of uniformity in the curriculum, but in view of the number of bodies involved and the way they tended to group it is not

surprising that the principle of the 'common curriculum' or 'core curriculum' that the schools were aiming for would be more difficult to achieve in teacher education. With the increasing opportunity for all in secondary education, the various external examinations which LEAs had initially introduced for young school leavers, were replaced in 1963 by a new national examination - the CSE. Allowance was made for equivalence with GCE examinations and, hence, entry to an academic and professional career was possible for a wider range of pupils, particularly from the working class. During this period, with labour governments in office, the number of places in Higher Education were increased and the number of better qualified candidates increased in universities and colleges. Evidence of the need for more central control of Higher Education had begun to appear with the introduction in 1960 of the Clearing House system for university, polytechnic and college applications. The static nature of the teacher training curriculum as offered to postgraduate students in UDEs has already been described in Chapter 1. Whereas the secondary modern schools, after initially tending to copy the grammar school structure, became more progressive in their approach, the Colleges of Education became more idealistic in tending towards the UDE model. The lengthening of compulsory schooling steadily increased with the raising of the school leaving age, with the corresponding increase in the length of teacher training courses in colleges.

The seventies was the latest period of development in United Kingdom education and overlapped with the return to power of a conservative government with a large majority. This period followed the education expansion of the sixties with the boom in public finance which had resulted in expansion in all sectors of education - comprehensive schools, new universities, polytechnics and teacher training facilities. It followed the increasing comprehensivization policy which resulted in many of the semi-independent schools choosing full independence rather than be swallowed up in the new system. This factor contributed with the drop in the birth rate to the apparent over supply of education facilities and teachers in the state schools. Consequently the last ten years has seen a revolutionary change in government policy towards all levels of education, particularly by controlling the finance available, but more recently by imposing direct constraints in Higher Education on the courses which can be offered and the numbers of students who can be admitted.

By the eighties the DES had exerted its authority on education at all levels. It was able to exert control over the curriculum in schools and on the external examination structure

through the Schools Council. An unparalleled situation had developed in Higher Education, in which through redundancies, closures and amalgamations, the DES and the LEAs, by means of the University Grants Committee (UGC) and the National Advisory for Local Authority Higher Education in England and Wales (NAB), were able to impose their policies on the universities as well as those institutions in the public sector (Jaques & Richardson 1985). By means of ACSET, tremendous cutbacks were achieved in teacher training and the number of places and types of courses available for student teachers was rigidly controlled through the Clearing House system. It is interesting to note that of the three alternative structures for teacher training:

1. the 3 or 4 year B.Ed. course,
2. the one year PGCE course, and
3. the four year BA/BSc with concurrent training,

the four year courses for B.Ed. and concurrent BA/BSc appear to be the most favoured as they indicate an earlier commitment to teaching and, hence, provide a longer period for professional development. Of these, the BA/BSc model provides greater flexibility by providing the means by which students, who are discovered to be unsuitable for teaching, may be awarded an academic degree only (DES 1984a). The monotechnic Colleges of Education were phased out by closures and amalgamations with universities, polytechnics and technical colleges, in some cases creating new Colleges of Higher Education. This new structure enabled prospective teachers to be trained on any of the above types of courses alongside students preparing for other trades and professions, avoiding the isolation that had existed previously. By means of the system of accreditation, the DES was able to exert control on the teacher training curriculum in both the private and public sector institutions. Through the application of the principle of accountability, pressure is now being put on qualified teachers. It is reported in the Times Educational Supplement that a research project into regular assessment of teachers was being undertaken and that "...the Education Secretary reaffirmed his commitment to assessment of teachers...and said that if unions and employers could not agree on a scheme, he might have to introduce one by legislation" (Durham & Garner 1985).

Although Lawton expresses concern about "the growing power of the mandarins" (Lawton 1980: Chapter 3), his concern appears to be more for the apparent secrecy of the decision-making and that the decision-making body should be representative of the various contributing

elements in society. There are indications that, in spite of the apparent power wielded by the DES on the various sectors in education, that the authority is not as undemocratic as it first appears. Even the previous quotation as reported in the Times Educational Supplement suggests that the decision-making is not as unilateral as Lawton would have us suppose. A more reasonable interpretation could be that the government has moved towards a policy based on consensus as opposed to one based on the power of any one group. The DES seeks agreement from the other two parties on a scheme for regular assessment of teachers, because if not it can only proceed through legislation. As indicated in Chapter 1.3, the radical and innovative policies for teacher training that are being introduced as part of the accreditation policy appear to have the full support of a variety of professional bodies representing the UCET, PCET, CNAA and the LEAs. In 1981 the LEAs had set up their own National Advisory Body (NAB) to discuss the future of Higher Education in England and Wales. The Society for Research in Higher Education (SRHE) published a series of Leverhulme Reports from 1981 onwards and in December 1983 organised a conference on 'The future for Higher Education', which "...brought together researchers, politicians, civil servants, journalists, industrialists and other interested parties" (Jaques & Richardson 1985: xiii). The Chairman of the UGC, Sir Peter Swinnerton-Dyer, initiated a public debate among the universities by asking for responses to twenty-eight far reaching questions on the nature and organisation of the universities (Swinnerton-Dyer 1983). Although, in the declining economic climate of the eighties, these appear to impose an unprecedented threat on those institutions, a dialogue between all the interested parties has been initiated on the future of Higher Education and the outcome, based on some sort of consensus, is now awaited.

It is interesting to reflect on the position of the school-based model of teacher training, described in Chapter 1.3, as opposed to the traditional campus-based model, described in Chapter 1.1. The school system is designed to prepare pupils to take their place in society, whereas the college or department of education prepares students to take their place in the school system. The de-schooling movement of Illich and Reimer that arose in the seventies argued against the artificiality of schooling, that schools are unnecessary and positively harmful and that schools serve to perpetuate the inequalities in society. Illich condemned manipulative and people-processing institutions and the society which prepared human beings for a 'life of consuming', instead of convivial institutions and a 'life of action'.

Although alternatives are not specified as such, it appears that the preparation for life in society might be through living in society itself and not in an artificial manipulative institution which exists for that purpose alone. This could consist of a network of resources that would bring together things, people with special skills, other learners, and even educators. The de-schoolers appear to be the extreme of the progressive opinion as applied to education. Alternatively they may be seen as beyond the possible extreme of the progressivists, who merely want to improve the school system and do not reject it altogether. The school-based policy in teacher training might be seen as related to the principle of de-schooling, as it appears to reject the college campus. The campus-based curriculum is considered unnecessary and, to some extent, harmful in the preparation of student teachers for the real world of the school and the classroom. However the variations in school-based models that have and are being explored still retain varying degrees of contact with the college campus, but much of the structure of the college as an institution (i.e. lectures, examinations, isolation from the schools, theoretical education disciplines) are rejected. How successful such a model will be and how it will relate to the evolving model of teacher training in the United Kingdom cannot be inferred at this stage, but possibly the present study undertaken at the University of Cambridge and mentioned in Chapter 1 will give some indication of its future possibilities (Pocklington 1983, 1984, 1985). However what is apparent, even at this early stage of its development and evaluation, is that school-based training, like microteaching, is not a specific but a generic term as a wide variety of practises are covered by the school-based programmes offered by different teacher training institutions.

Comparison with developments in South African education

The United Kingdom and South Africa show some interesting differences in their approach to teacher training. In England and Wales, the implementation of the McNair Report in 1944 and the creation of university-sponsored ATOs, resulted in all teaching qualifications, not only those for graduates, being awarded by universities (apart from an anomaly at Cambridge). Following the recommendation of the Robbins Committee, the establishment of the Council for National Academic Awards (CNAA) in 1964, meant that the degree-awarding monopoly of the universities was now challenged and, in particular, the CNAA expressed a willingness to validate the B.Ed. degrees, initiated in 1968. Many colleges which found the approach of their

own universities too restrictive turned to the CNAA as an alternative validating body. By 1982, "...roughly half of the students graduating B.Ed. receive a university degree and the remainder receive the degree of the CNAA" (McNamara & Ross 1982: 50) and, of those B.Ed. degrees validated by the universities, a distinction has to be made between those awarded internally and those taught in the associated colleges. In Scotland, courses for all professional teaching qualifications were taught in the colleges. In England and Wales, it is possible for graduates to pursue studies for the PGCE outside the universities either in the associated colleges or through the CNAA. CNAA validation shows evidence of a more progressive, professionally oriented approach to the PGCE, involving the use of course work assessments instead of final written examinations:

"Written examinations of a traditional kind may be appropriate but in most schemes other forms of assessment are preferred: various course work assignments, projects, reports on school experience."

(CNAA undated: 3)

Hence, while responsibility for secondary teacher training in South Africa was legally transferred to the universities, the universities in the United Kingdom were losing their monopoly to the CNAA and, to some extent, their autonomy to the DES. In South Africa, as the Gericke Report in 1968 did not support the institute pattern for colleges to offer courses validated by a university, the university responsibility for teacher training was even more strongly entrenched at the secondary level. A type of institute policy was introduced by the University of Natal, in which secondary teacher training courses continued at the provincial training colleges and Technikon whilst the control of the curriculum and the award of the qualification became the responsibility of the University. Similarly, the independent Homeland of Bophuthatswana is presently developing an institute pattern of teaching training organisation for its teacher training colleges, so that a more definite formal relationship is established between them and the university. Niblett, in his review of Scott's 'The crisis of the university' (Scott 1984), comments on the sponsorship of Institutes of Education as "an imaginative concept, whatever its deficiencies, of how universities could exercise a liberalising influence over a range of surrounding institutions of higher education which were growing in their diversity" (Niblett 1985: 102) and sees it as a further example of the conservatism of the universities which has affected their 'lack of vision'.

The recent developments in the United Kingdom have undermined even further the autonomy of universities. The financial control of government has been exerted on the universities, resulting in the imposition of quota systems which control the type of specialisms offered in a PGCE course and the number of students who may be admitted. This control, operating through the Clearing House system, is part of a much more drastic policy introduced by the establishment of the Advisory Council for the Supply and Training of Teachers (ACSTT) in 1973, which became the Advisory Committee on the Supply and Education of Teachers (ACSET) in 1980. A policy of retrenchment and reorganisation in the colleges and polytechnics of the Public sector has resulted in enormous reductions in the places available for teacher training. This policy of cutbacks has operated at all levels in the supply of teachers. South Africa, on the other hand, has been concerned with an expansion of teacher training facilities in the area of Black education following the publication of the De Lange report in 1980. Alongside the increase in the number of teacher training colleges for Black students, there has also been an increase in the production of Black graduate teachers by the Homeland and other universities (including the establishment of the new correspondence university Vista). In the White and Indian systems, the supply of newly qualified graduate teachers has only recently begun to exceed the demand and for the first time entrance to university is being controlled and growth is being limited. In South Africa, although central government has the legal authority and the financial control over universities through the subsidy system, it has chosen to delegate the responsibility of controlling the student intake to the individual institutions.

In the United Kingdom, the DES has assumed much greater central control over primary, secondary and tertiary education and, in particular, over teacher training. Qualified Teacher (QT) status is only being given to those training institutions that meet certain criteria (DES 1984b). The system of accreditation introduced by the DES consists of criteria which affect initial selection procedures and qualifications, the duration of the course, the duration of the practical teaching practice and school experience components, and the qualifications and recent (including on-going) classroom teaching experience of those tutors responsible for teaching method courses. In South Africa, the criteria for teacher training institutions has been in operation since 1972 and controls the academic, professional and practical components in the course curriculum and the initial entry qualifications of the students. Although any criteria is bound to produce some constraints on the institutions and courses to which they

refer, in South Africa they tended to consolidate and confirm existing practice, whereas in the United Kingdom the criteria are being used to put pressure on those institutions that are resisting the change towards the more professional approach that is felt desirable (DES 1984b).

The class system of education that followed the 1870 Education Act in the United Kingdom with its two distinct curricula for leadership and followership, can be compared to the racial system of education that followed the implementation of the Republic of South Africa Constitution Act of 1961, which was based on the South Africa Act of 1909 (see Chapter 1.2). White education could be compared to the best anywhere and prepared White pupils for leadership in the tradition of the grammar and public schools in the United Kingdom. On the other hand Black education was very inferior and, although the opportunity for educational advancement was there for the few who were able to take advantage of it, the main objective was to prepare the majority of Black pupils for followership. The upgrading of all teaching qualifications is a far more complex issue in the South African context than it is in the United Kingdom. Whereas equality in the professional status of all teachers was achieved in the United Kingdom by 1973 with an all graduate profession, although parity in years of training for Whites has been achieved in South Africa, an all graduate profession has not been achieved even for White teachers. Recent years have seen the upgrading of Black teaching qualifications from a Standard 8 entry and a two year course of training to a matriculation entry and three or four year course, comparable to the standards in the other population groups. Meanwhile attempts are being made to upgrade the teachers with minimal qualifications who have been in the system for some years (Marcum 1982). The economic problems and the home language problems aggravate the South African attempt to achieve any real equality.

In the United Kingdom, there appears to have been far more radical experimentation in the development of school curricula at all levels. The changing shift in the power structure suggests that much of this innovation was the responsibility of the teaching profession and that the changes did not receive the public support that they needed. The lack of a rigid central policy meant that some schools and LEAs were hardly affected by the curriculum innovations. South Africa with its more centrally directed policy, operating from the Committee of Heads of Education (CHE) in the White sector and the centrally controlled bodies in the other sectors, was able to regularize any curriculum reforms and developments. Further,

because of the delay in following any new experimental approaches overseas, South Africa was able to learn from many of the mistakes. Curriculum development was achieved as part of the central policy, through groups of specialist teachers working together as part of the provincial and national policy and not as representatives of a power structure, such as the teachers' unions, in opposition to central authority.

The South African equivalent of the United Kingdom Schools Council for Curriculum and Examinations would appear to be the Human Sciences Research Council (HSRC), which as part of the central education structure can be empowered to conduct research into any aspects of education. Whereas the Schools Council committees, as they were originally planned, contained a majority of teacher representatives, the HSRC committees are more like those which have now evolved in the Schools Council i.e. they represent central opinion, rather than local or professional opinion. United Kingdom policy appears to have moved more into line with South African, or alternatively, South Africa may have benefitted by waiting to see the outcome of radical changes in policy before initiating its own innovations.

Similarly the secondary examination structure in South Africa shows more central control than its United Kingdom equivalent. In the United Kingdom a number of different independent national examination boards exist at GCE level, together with a number of regional CSE boards. Part of the functions of the Schools Council is the coordination and moderation of the various external examinations and the identification of a common policy. The Joint Matriculation Board (JMB) in South Africa is the national body which identifies core syllabuses in all the approved school subjects and controls the standards of passes. The four provinces are empowered to set their own examinations for their own Leaving Certificates at Standard 10 which are recognised for matriculation exemption purposes. It appears that the United Kingdom is moving towards a more centrally defined policy in relation to secondary examinations, than has existed previously. The DES policy in the United Kingdom appears to be aimed at one examination which will embrace the wide range of CSE and GCE examinations.

In the United Kingdom, the LEAs have always played an important part in the administration and control of education in the public sector. In spite of the authority exerted by the DES, there is evidence that the LEAs are still exerting their own authority on the control of the curriculum in their own schools. The Inner London Education Authority (ILEA) has recently conducted its own inquiries into its own schools and shown that parents,

teachers and pupils all agree on the present unacceptable level of underachievement in both primary (Thomas 1984) and secondary schools (Hargreaves 1985). In South Africa, more authority has always been delegated to the provincial education authorities for the White education sector, whereas the Indian, Coloured and Black sectors have been administered and controlled by central authorities, such as the Department of Indian Education, Department of Coloured Affairs and the Department of National Education. With the new political dispensation introduced in 1984 and following the recommendations of the De Lange Commission (HSRC 1981a), changes to the balance between central and local authorities in the different sectors are likely to be affected in the immediate future, but the direction of such changes is difficult to anticipate at this stage.

The stratification in United Kingdom education, which affects the organisation of schools, the curriculum policy and the structure of teacher training, is one that appears to be based on class. The upper class is catered for by the private system, whereas the state provides, through its LEAs, for the education of the middle and working classes, although there is considerable flexibility at all levels for mobility between the classes. In spite of the move towards greater equality and democratisation of the school system that followed the implementation of the 1944 Act and succeeding reports (Crowther in 1959, Newsom in 1963, Plowden in 1967 and Robbins in 1963), it now appears that any national curriculum policy is likely to allow for two levels i.e. an academic and a practical or pre-vocational. The class system, as it operates in the United Kingdom, does allow for mobility and is not enshrined in the legal system. In South Africa, the education system is divided according to race, each racial system containing its own stratification according to class. Because the class stratification, as found in the United Kingdom, has been achieved by the racial structure in South Africa, a system which has been enshrined by law in the policy of apartheid since independence in 1963, the class divisions have not demanded the same attention as they have in the United Kingdom. However, in recent years there has been considerable relaxation of segregation according to race as evidenced by the opening up of private schools and universities to the other race groups.

Teacher professionalism, as shown by the increasing power of teacher unions, became a significant force in the politics of education in the United Kingdom. During the sixties, the balance of power between the three partners appeared to move in favour of the teachers, whereas

in recent years there appears to have been a reversal of this trend by the authority assumed by the DES. Teacher assessment has become a controversial issue, which has not yet been resolved (Durham & Garner 1985). In South Africa, the professional aspirations of teachers have been represented by teacher societies, at both a provincial and national level. As an indication of the type of central control which operates in the South African context, the South African Teachers Council (SATC) for Whites was established in 1978 by government statute as the body officially recognised to represent teacher opinion. With the new political dispensation, it is likely that the composition and representation of this body will be widened to include the other race groups. Although the SATC has a professional control over its own members, it is beginning to anticipate some contribution to the curriculum planning of initial teacher training courses (see Chapter 1.2). In the United Kingdom, the teacher unions became a force to be reckoned with, by both the DES and the LEAs. In South Africa the teacher societies have a semi-official recognition, in that the senior officers of the societies are usually promoted to senior administrative positions in provincial education. This official recognition of professional service has no doubt contributed to less militancy among teachers in South Africa than is evident in the United Kingdom and also illustrates how the strong central authority in South Africa has a greater unity, particularly in the White population group. The White teacher societies resemble the AMA by their greater concern for professional matters, whereas the Black teachers organisation are more concerned with conditions of service, as the NUT and the SMA have been. The class difference in the United Kingdom tends to become a racial difference in South Africa.

In the United Kingdom, there appears to have been far more radical experimentation in the development of school curricula at all levels. The changing shift in the power structure suggests that much of this innovation was the responsibility of the teaching profession and that the changes did not receive the public support that they needed. The lack of a rigid central policy meant that some schools and LEAs were hardly affected by the curriculum innovations. South Africa with its more centrally directed policy, operating from the Committee of Heads of Education (CHE) in the White sector and the centrally controlled bodies in the other sectors, was able to regularize any curriculum reforms and developments. Further, because of the delay in following any new experimental approaches overseas, South Africa was able to learn from many of the mistakes. Curriculum development was achieved as part of the

central policy, through groups of specialist teachers working together as part of the provincial and national policy and not as representatives of a power structure, such as the teachers unions, in opposition to central authority.

The seventies introduced a period of severe education cuts in the United Kingdom following the expansion in the sixties. In South Africa, with its more complicated racial structure, the cuts in White education came a little later, but were accompanied by tremendous expansion in all other sectors, particularly in Black education. This new policy which attempts to implement to some degree the findings of the de Lange Commission could be compared to the 1944 Education Act, in that it is aimed at greater equality in the provision of education at all levels for the various racial groups. The de Lange Report identified the following as clearly demonstrable indicators of the inequalities that existed between the education available for the different population groups:

- "i) Accessibility, including the freedom of choice in the sense of the absence of educationally irrelevant limitations.
- ii) Curriculum contents and standards, for example subject choice, syllabuses, textbooks, evaluation criteria, examination standards, certification, and general administration.
- iii) General compulsory education, for example of a specific number of years agreed upon.
- iv) Teachers, for example level of training, teacher-pupil ratio, etc.
- vi) Physical educational facilities, for example the number and quality of buildings, equipment, sports facilities, etc.
- vi) Financial resources, for example per capita expenditure. "

(HSRC 1981a: 211)

The James Report drew attention to the need to relate initial training with inservice training. In the United Kingdom a variety of inservice facilities are available for teachers, organised nationally by the DES or locally by the LEAs, UDEs or colleges etc. It was an easy and natural move to combine initial training and inservice training in the IT-INSET project so the students, teachers and teacher trainers could benefit from working together as a team in the classroom. In South Africa, although initial training (at the secondary level) is the responsibility of the universities, who also provide postgraduate degree courses, the updating

of teachers by inservice courses tends to be the responsibility of the provincial education department using their own inspectors and subject advisors. Inservice courses, of a practical and professional nature, are seen as having a different value and purpose to the academic courses and qualifications offered by the universities.

In the United Kingdom, the influence and effects of the progressive movement in education were felt very strongly in the years that followed the 1944 Act. Following the de Lange Report in South Africa, it is reported "In labor and education, however, reformist activism is acquiring considerable punch." (Marcum 1982: 14), but since "Neither the dominant ideology nor the constitutional law of white-ruled South Africa is conducive to social and political reform....Only a modest measure of hope is justified by the articulated goals of the de Lange Commission report..." (Marcum 1982: 70). Time will tell whether the new political dispensation of 1984 has opened the doors to "...imaginative, catalytic initiatives in education (which) might significantly further the cause of peaceful change" (Marcum 1982: 70).

Curriculum change in postgraduate teacher training courses

The provision of education facilities in a modern progressive society is a complex process. Any attempt to examine its contribution or the contribution of any of its component parts, whether these be based on level (primary, secondary, tertiary), class (upper, middle, working), race (White, Indian, Coloured, Black) or outcomes (academic, vocational, functional), is complicated, not only by the relation between the various elements, but by the relation of education to society as a whole. In a modern Western society the organisation of educational facilities is affected not only by the input into the system, such as physical facilities, technological development, teaching resources and staff, but it is also affected by its own output, since the output into society from the education system controls the availability of the input. In the modern world it is of limited value to examine even national systems, as if they could be isolated. The provisions of education are part of the total economy and consequently decisions affecting education as a whole, or any of its components, are not only ethical and political, but they are also economic. The interplay of education with the economics of the society that it serves makes any analysis difficult if not impossible. The economic situation which exists at a particular time and place is not only a determining factor in devising and modifying an education system or any of its component parts, but it is also a

product of the outcome of that system. Hence, the scientific or analytical approach to problem solving in this sphere of human endeavour can only be of limited value. However, although it may be impossible to identify the right decision in a particular time and place, it could be possible to identify wrong decisions. Because of the highly interactive nature of the components in a modern economy or in a modern education system, which by the process of that interaction are subject to continuing change, any decision not to change a particular component can be regarded as not the right one to make. The resistance to change in teacher training courses that appears to have continued until quite recently is an example of an inappropriate decision. It is important to distinguish between ad hoc changes, or changes for the sake of change, and those based on some sort of systematic plan or strategy, even if in the light of future events that plan has to be changed. The new situation, that has been created, becomes a new factor which was impossible to identify previously. The process of looking for a solution is more important than the solution itself since any specific solution can only be of limited value in the long term.

In 1979 the revolution in the PGCE course was acknowledged by many of the staff involved at a SRHE conference, entitled 'Current developments in the Postgraduate Certificate of Education' (Alexander & Whitaker 1980). The discussions following the publication of the James Report in 1972 have resulted in a variety of new approaches to postgraduate teacher training aiming at better professional preparation. A continuum of curricula can be identified from the pre-1970 traditional model of a PGCE course through the present more professional model to the more innovatory school-based approaches. The introduction of microteaching can be seen as a transition stage between the traditional model and the present United Kingdom model. The position on the continuum also indicates differences according to the following characteristics:

1. Less theoretical and more practical,
2. Less academic and more professional,
3. Less simulation and more use of the real situation,
4. Less passive learning and more active participation by students,
5. Less campus-based learning and more school-based learning,
6. Less attention to education disciplines and more to subject method,
7. Less static and more dynamic curriculum,

8. Less lecturing more group discussion,
9. Less use of separate disciplines and a more integrated approach,
10. Less use of written examinations more use of course work assessment,
11. Shorter contact with education specialists and longer contact with professional teachers,
12. More use of teachers in all stages of selection, training and assessment,
13. Less concern with knowledge about education and more concern with skills and abilities of teachers, 'knowing that' is replaced by 'knowing how',
14. Less education and more training,
15. Less attention to long term aims and more attention to short term objectives , such as 'survival' in the classroom.

Changes in education are often interpreted as taking place like the swing of a pendulum, forwards and backwards. Some of the above characteristics of the present curriculum trends suggest a swing backwards. However, it is important that teacher training be seen in the full context of education, which must also be seen in the wider context of a developing society. The swinging pendulum has a pivot that moves forward, the swing appears backwards but the pendulum bob still moves forwards. The circumstances are continually changing and in such a dynamic situation no process is a repetition of what has gone before.

On the continuum of teacher training curricula, it would appear that postgraduate HDE courses in South Africa are more like the traditional model of the PGCE in the United Kingdom. In the South African context there are signs of changes which must have their repercussions eventually on the curricula of teacher training. The universities no longer have the autonomy in Higher Education that they used to have. The development of technical education and, in particular, the Technikons and the equality of post structures across different types of tertiary institution has diminished the prestige that universities used to have. The school curriculum has been subject to various modifications, which appear to be crystallizing in a form similar to that in the United Kingdom, where an academic curriculum is followed by a minority and a broader based, pre-vocational curriculum is anticipated for the majority. Mixed ability teaching has been a more common feature in South African schools, but as the curriculum for the different levels have been very similar and pupils have to pass each year in order to be promoted, there has been greater uniformity in the mixed ability classes, among some of the population groups, than is evident in the United Kingdom. On the other hand, mixed racial

classes would undoubtedly introduce special needs in teacher training courses, if and when they are introduced. The opportunity which now exists for student teachers in the different population groups to train together in universities is also likely to lead to changes in the school system for which they are being prepared.

A consensus type of decision-making policy is apparent in both countries. South Africa is moving towards it politically from a very strong central racially-autocratic form of government, in such a way that the consensus decision-making policy is built into the legal framework. In the United Kingdom, the central government is trying to use its more nebulous authority, based on an electoral mandate, on the various autonomous groups to achieve a similar type of consensus without falling back on the law. However in both cases the effects of 'responsible government' are being felt through the power of the central authority.

The effect of the greater power of the central authority, in South Africa, has resulted in a greater uniformity, at least within each racial group and in some cases between them. For instance, the length of practice teaching required is consistently less in HDE(PG) courses than it is in PGCE courses (see Appendix 1.5). Consequently the HDE(PG) is no longer recognised for QT status in the United Kingdom, "...since 1979, we would regard a 30 week course with 12 weeks supervised teaching practice as comparable to a PGCE course here, provided the other aspects of the course were acceptable" (DES 1984c). The larger distances involved in placing and supervising student teachers in schools is an important contributing factor. The effect of the large distances is further aggravated by the establishment of four separate racially segregated education systems. It is likely that there may be some changes made due to the influence of the SATC, or some central registration authority as recommended by the de Lange Commission (HSRC 1981b), and as greater professional demands are made on those joining the profession. Teachers in South Africa need to be made more aware of their responsibilities to students in training and more use needs to be made of them. South Africa could benefit from an IT-INSET approach, in which students learn from working with a professional teacher, the teacher benefits from working alongside a teacher trainer and the teacher trainer benefits from working in the practical environment of the classroom.

The place of microteaching in the continuum of teacher training curricula is very significant. If teacher training is largely a campus-based activity where students learn about education and teaching, microteaching has tremendous contributions to make because it

introduces a practical component for individual students. The analytic nature of the activity breaks the complex process of teaching into smaller discrete skills to which the students can be introduced gradually. On the other hand, if teacher training is largely campus-based, microteaching is very artificial in the way it is set up and can only serve as an early introduction to the classroom situation to help the student into their initial encounter with pupils. Whether this latter use warrants large expenditure on physical facilities, technical equipment and specialised assistance has to be considered in the South African context, bearing in mind the minimal use made of such facilities when real classroom situations are more readily available, as they are in the United Kingdom. Capital expenditure on resources is further aggravated by the maintenance and running expenses, because of the large staff involvement. There is a danger that, once the commitment has been made, that it has to be used to warrant the expenditure and not because it is the most desirable or effective way of training teachers.

Thus, factors such as the dominant ideology and the particular form of constitutional law which applies in a country can influence the socio-political system which affects the distribution of wealth and, consequently through the economic situation created, such remote factors can influence the total education structure and thus the curriculum operating in teacher training courses. Microteaching, as a possible component of a postgraduate teacher training course, is likely to be influenced by factors which are outside the direct control of educationists.

6.2.2 IMPLICATIONS FOR SOUTH AFRICA

The changing role of educational research is likely to receive increasing attention in South Africa, particularly as it has to meet the needs of societies which are rooted in both the developed first world and the developing third world. The qualitative techniques of ethnography, referred to in Chapter 2.3, offer strong possibilities for bridging the gaps between educational theory, educational research and the practice of teaching (Woods 1985). Such an approach to educational research would also relate to a more school-based approach to teacher training, which brings the student, the teacher and the teacher trainer into a closer working relationship.

Increasing attention is likely to be paid to university autonomy in higher education in South Africa. The conflict between the educational needs of a state, as seen by the politically powerful central bureaucracy, and autonomous institutions of higher education (Millet 1984) which has brought about the changes experienced in the United Kingdom in relation to the place of the university in a modern technological society (Phillipson 1983; Scott 1984) are likely to have their repercussions. The elevation of public sector institutions to an equivalent status is already an indication that universities are losing their unique position in higher education in South Africa.

The influence of the South African Teachers Council with its concern for the professional status of teachers is also likely to use its authority on the nature of selection procedures and the curriculum of teacher training courses and as a result challenge university autonomy in these areas of decision-making. Because of the different nature of the relation between the state and the various autonomous bodies established by statutes, the conflicts experienced in other countries might well be avoided.

A comparative study is particularly valuable in the South African context because of the impact of research and new ideas from overseas. In South Africa innovative educational practices, such as new curricula, new methods, new media etc., have often followed the development of ideas in the United Kingdom, even if with the passage of time a more mature and less radical policy was eventually implemented. South Africa has gained from the added value of watching experiments conducted elsewhere and evaluating them before modifying its own

policies.

There are, however, certain specific points that arise from the study and which relate to the South African situation. Microteaching must not be seen as an end in itself but as a means for achieving an end viz. the training of students as teachers for a variety of different school situations. The majority of teacher trainers in both countries agree that microteaching cannot replace the real experience of the classroom. Importance is attached to the development of a skills approach to teacher training and of behavioural modification, both of which appear to be part of the academic, campus-based philosophy. The value of microteaching comes through as a worthwhile introductory experience for the real classroom situation, whether the course is campus-based or school-based. This study shows that a number of tutors are achieving satisfactory microteaching programmes in a variety of ways.

It appears that expensive facilities with sophisticated video equipment may be more of a hindrance than an aid, due to the problems of maintenance and the anxiety caused in students. These are areas which require much more careful examination before any definite conclusion can be drawn.

It is apparent that microteaching has a more intense image and a more expensive one in South Africa. There is a danger that the only worthwhile microteaching programmes are those associated with expensive physical facilities and, particularly, sophisticated video equipment. There is also the danger that the increasing use of such expensive facilities is achieved by reducing the block teaching practices, in order to reduce the total costs of teacher training.

The need for technical assistance in providing and maintaining the sophisticated equipment is also an area that needs attention. In the early stages of any innovation tutors are prepared to work with a certain amount of inconvenience, but once a course becomes routine and repetitious the preparation and maintenance are aspects which can be delegated to others.

Similarly, it appears that in the early stages tutors are prepared to commit a lot of time to preparing and organising microteaching programmes but once the technique becomes established they are likely to look for more efficient ways of using their time even if it means a reduction in the time allocated to microteaching. There are already indications of tutors using group discussion as a means of reducing the staff time commitment.

The evidence from the United Kingdom also suggests that the enthusiasm for the use of observation schedules and reteach lessons by South African universities is also likely to wane

as tutors become more familiar with the technique of microteaching generally and as the limitations of the benefits from those techniques become apparent in the short time available.

Assessment is an aspect of teacher training that particularly demands attention. The formal assessment of microteaching is given more importance in South African universities and can be seen to be compatible with the general assessment procedure adopted, i.e. a multi-course structure with each component formally assessed by examination, written or practical. This can be seen to be related to the more autocratic nature of society as such examinations provide a necessary motivation for students to participate fully. A more democratic approach to teacher training would be such that the curriculum was designed in order to provide that motivation and as a result more use can be made of assessment of course work assignments that are seen by the students as being important and relevant to their professional development as teachers.

The school-based approaches to teacher training, of which various models are being tried and evaluated in the United Kingdom, may have much to offer South Africa. IT-INSET is based on the principle that teachers are not just trained in one year but need constant inputs and a very effective way of achieving this is to link the teacher more strongly with the student-teacher, with the education tutor playing an active part in the partnership also, each learning and benefitting from the association. The combination of initial training with in-service training could be of particular value in those areas where teachers are underqualified and need some form of upgrading. The incorporation of some of the beneficial aspects of microteaching into a school-based model of teacher training needs further study. The introductory function of microteaching to whole class teaching is one obvious way. It could be that other analytic approaches to class teaching incorporating similar feedback techniques can be developed in situations where the student knows his class on a more continuous basis. Teaching is concerned with personal relationships; part of the skill of successful teaching comes from the teacher's knowledge of the class as a number of very different individuals. The ability to handle individual pupils, with their unique and personal problems, in a group situation in the classroom is one of the essential skills that the successful teacher must acquire and is one that tends to be neglected in the more artificial microteaching clinic.

There is a similar need for more experimentation with holistic approaches to teacher training. The incorporation of a more dynamic and flexible type of microteaching using

improved technology, involving portable equipment, lends itself to a school-based approach as well as the traditional campus-based model. It is likely that less importance will be attached to the development of specific teaching skills and behavioural modification because of the short time available for each student to perform.

The importance of subject methods or subject didactics in professional teacher training courses is also receiving attention. Speakers at Subject Method Symposia held in November 1982 at UNISA and in November 1984 at the University of the Orange Free State emphasised:

"The subject didactics component in the HED course should be regarded as an important part of the course and can serve a meaningful link between theory and practice....the subject didactic component could probably form the core of the HED course."

(Degenaar 1982: 3)

"It may even be said that each of the different perspectives of pedagogics can be made applicable to the practical teaching situation in the classroom via subject didactics."

(McFarlane 1982: 5)

"...such an arrangement could counteract the widespread perception of student teachers that their preparation is fragmented, disjointed and irrelevant. Rather than a theory-based approach, a practice-based approach which is both pupil oriented and subject oriented...would seem to be the most likely to succeed..."

(Nieman 1984: 7)

An aspect of teacher training in South Africa that already appears to be receiving attention is the balance between academic, professional and practical components (van Loggerenberg 1984). In addition, the need for international recognition for the HDE(PG) is likely to lead to a longer supervised teaching practice in schools. Such a development would lead to a reduced time on the university campus and is likely to be achieved by a reduction in the time for the academic components. Nieman went even further when she sowed the seeds of an IT-INSET approach by adding "Another way in which subject didactics lecturers could practice what they preach would be to join their students at schools, and again become teachers of their subject" (Nieman 1984: 7). She also proposed a sequence of experiences offering progressively greater challenges to students, by:

1. Tutoring a single pupil possibly in a clinic on the campus (Maanschalk 1981),
2. Tutoring small groups of pupils either at school or on the campus,
3. Finally confronting a full class in a regular classroom.

This would allow for a close analysis of their teaching performance before they proceed to the more exhausting experience of a block period of teaching practice. If there is to be more emphasis on the professional and practical components it can only be achieved at the expense of the academic, within the limitations of the time available.

On the other hand postgraduate teacher training in South Africa is even more campus-based than the equivalent training in the United Kingdom, since the length of supervised teaching practice in schools is so much shorter i.e. 4-9 weeks as opposed to 12-18 weeks. Hence in the South African situation it is likely that more importance will be attached to microteaching as it creates a valuable practical component on the university campus which supplements the usual practical component experienced during the block teaching practice in schools.

There are already indications from the Subject Didactics Symposia, referred to above, that alternative approaches to the organisation of microteaching are being explored, particularly in relation to a General Methods course or to specific Subject Methods. This is an area which demands closer attention as, although the nature of the choice of organisation in any one university may be influenced by factors peculiar to the university, it is likely that the form that the microteaching programme will follow may be significantly different. Although there may be a marked degree of overlap between general teaching skills as perceived by an 'education tutor' and subject specific skills as perceived by the different 'subject method tutors', the evidence in Chapter 5 suggests that the models of microteaching programmes may be significantly different, because of the difference in attitudes expressed to the use of physical facilities (X11, X92), to the analytic/prescriptive approach (X64) and to the type of supervision (X31, X32).

The importance attached to the use of sophisticated video recording facilities is an aspect that is worthy of further study as indicated in Chapter 5.1.2 by the work on Video Self-Confrontation and its effects on different individuals (Perlberg 1983b). These different effects suggest that personality studies (Hargie et al 1983a,b) may contribute to a more effective use of video recordings.

The changing of teaching behaviour is another area that is fundamental to the whole concept of teacher training and the research evidence outlined in Chapter 5.2.3 suggests that it is not clear as to whether this is achieved by the various types of modelling, by discrimination training or by actual teaching practice. Further research into these aspects could contribute to more effective forms of microteaching, possibly requiring less expensive facilities and less time. The nature of the supervision and the use of observation schedules, as outlined in Chapter 5.3, and the use of reteach lessons, in Chapter 5.4, also relate to the effectiveness of microteaching in changing behaviour and further study is required on those factors which appear to affect the way they are used.

The acquisition of teaching skills in a microteaching situation and their transfer to the school classroom is a further challenging area of study. There is a need for short term and long term evaluations of different models of microteaching programmes, their relation to the student's performance on teaching practice and to their ongoing performance as teachers. Chapter 5.7 draws attention to the need for clarification about the skills approach and its effectiveness in the long term.

However the underlying issue in this study of the use of microteaching in postgraduate teacher training is the nature of the total course, the balance between the various components and the balance between the different types of physical situations created for the benefit of the student teachers in the university and in the school. No one would deny the need for the training to be seen as relevant to the professional preparation of teachers, the challenge in postgraduate teacher training is to unify the tutor's broad educational perspective of 'relevant' with that of the student's more narrow subject teaching perspective.

As the political situation in South Africa clarifies with the new political dispensation, it may well be that a more efficient use of school subject specialisms in teacher training may have to be achieved.

The situation in South Africa appears to be ready for change, socially, politically and educationally. The effects of such changes on postgraduate teacher training courses are likely to follow the trends that have been identified as a result of this study.

APPENDIX 1

PAGE:

1.1 Preliminary Information:	
a) Letter	223
b) Questionnaire	224
1.2 Organisation of Microteaching:	
a) Letter	225
b) Questionnaire	226
c) Attitude Questionnaire	230
1.3 Computer code for responses:	
a) Organisation Questionnaire	233
b) Attitude Questionnaire	238
1.4 SPSSALL data list for computer programmes.	240
1.5 Data from Information Questionnaire on institutions.	248
1.6 Map of United Kingdom institutions.	252
1.7 Distribution of school-based studies.	253

Dept of Educational Research
University of Lancaster
Bailrigg
LANCASTER LA1 4YW
6 October 1983

Head of Postgraduate
Diploma course
Dept of Education

Dear Head of Department

Microteaching has been recognised for a number of years for its contribution to teacher training, both as a research tool and as a training tool. There are indications in the literature which suggest that the findings of research are not necessarily of value to the practitioners. In this study I am investigating how microteaching is used by the practitioners of teacher education. I am restricting my investigation to the one-year postgraduate diploma course because of the pressure of time in that course.

The aim of my investigation is to identify the patterns of microteaching that are used and to try to identify the factors which affect the way education staff use microteaching.

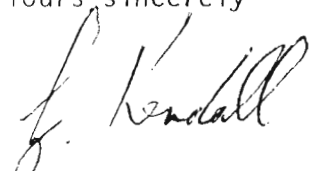
I would be most grateful if you could complete the short questionnaire to provide some information about the use of microteaching in your department. I would like to follow this with a more detailed questionnaire directed at the staff involved in microteaching.

A stamped envelope is enclosed for the return of the questionnaire. Please fold the questionnaire so that the return address appears in the window.

I would welcome the opportunity of discussing more general issues involved in the one-year postgraduate course so that I can become aware of the whole context in which microteaching is possibly a small component. I would welcome the opportunity of visiting your Department in order to make this contact.

Thank you for your co-operation.

Yours sincerely



Mr G. Kendall
VISITING LECTURER

MICROTEACHING INFORMATION QUESTIONNAIRE

This questionnaire is designed to obtain information about the one-year postgraduate diploma course and the way microteaching is used as a course component.

Please complete the following:

NAME
ADDRESS
..... TEL. NO.

TOTAL STUDENT INTAKE for one-year postgraduate course : secondary
primary

TOTAL STAFF INVOLVED in one-year postgraduate course : Academic full-time
Academic part-time
Technical

TOTAL FORMAL TIMETABLED COMMITMENT by students during the year for all courses in the diploma: hours per week for weeks.

PLEASE INDICATE HOW MICROTEACHING is organised in the one-year postgraduate course by deleting those statements which are not appropriate and by including the name of the course and the staff responsible:

- Not a component of any course
- OR Offered to all students as a general methods organisation and organised by
- OR Offered to particular groups of students as part of specific method courses.
Please list: Course Staff responsible

.....
.....
.....
.....

Total number of weeks committed to microteaching in one-year postgraduate course :

Please comment on the contribution that microteaching can make in the one-year postgraduate course:

.....
.....
.....
.....

and on its limitations :.....

.....
.....
.....

and on any problems that have been experienced with respect to its use :.....

.....
.....
.....



UNIVERSITY OF NATAL

Dear

I am involved in a study of the factors which affect the use of microteaching in the one-year post-graduate teacher training course, usually known as the MDE (Post Graduate).

I enclose copies of two questionnaires which I would be grateful if you would complete and return to me. The Information questionnaire is designed to find out how you organise the microteaching programme for a particular group of students, either as a course on its own or as part of a methods of teaching course. The other questionnaire is designed to obtain some indication of your attitude to particular aspects of microteaching as they apply to the MDE (PG). Even if you do not use any form of microteaching in your course with MDE (PG) students, your responses to the Attitude questionnaire will still be of great value to my study.

For the purpose of this study I am defining microteaching as the version of practice teaching scaled down in time, content, objectives and number of pupils, usually recorded and usually in a contrived situation on the student's campus, which enables a student to practise methods of teaching at a level appropriate to the stage of development of the pupils for whom the student is being professionally prepared, so that the student can obtain feedback in order to make his teaching more effective. Other terms may be used for this type of experience, such as 'a programme of minilessons' or 'campus based teaching practice'. The term 'students' is used to apply to those learning to teach, whereas 'pupils' is used for those who constitute the class that is taught.

If you use 'microteaching' to embrace a broader range of student experiences, I would be grateful if you would indicate this where there is space available, otherwise please limit your responses to those microteaching experiences which are covered by the above definition.

Thankyou for your cooperation.

Mr. G. Kendall

ORGANISATION OF MICROTEACHING QUESTIONNAIRE

Please complete the items below giving only information relating to the group of post-graduate student teachers for whose microteaching you have responsibility. Where appropriate mark your choice of answer or give the information required. If more than one response is appropriate, please indicate. If you cannot respond to an item please indicate why.

1. Name of staff member
2. University/Polytechnic/College
3. Which students are involved in MT?

All
-----	-------
4. Number of students involved in MT:
5. Number of staff involved in your MT group: Academic Technical
6. Is student participation in MT compulsory?

Yes	No
-----	----
7. Time committed to MT by student: Lectureshours Practicalhours
8. Length of session used for MT:minutes
9. Time committed to MT by staff: Preparation etc.staff hours
Student contactstaff hours
10. Number of students sharing a MT session:
11. Mixed or single subject MT lessons:

Mixed
-------	-------
12. Length of MT lesson for each student:

≤ 5	6-10	11-15	> 15
-----	------	-------	------

 minutes
13. Type of 'pupils' for MT lesson:

Children	Peers as children	Peers as peers
----------	-------------------	----------------
14. Number of 'pupils' for MT lesson:

≤ 5	6-10	11-15	> 15
-----	------	-------	------
15. Preparation for MT lesson, indicate approx. number: Lectures
Handouts Videotaped/Demonstration lessons
16. Supervision of MT lessons:

Lecturer	Technician	Student	P/T assistant
----------	------------	---------	---------------
17. Use of observation schedules/check lists:

Never	Sometimes	Always
-------	-----------	--------

Comment
18. Feedback to student on MT lesson:

Lecturer	Peers	Self
----------	-------	------
19. Discussion of MT lesson with student:

None	Individually	Group
------	--------------	-------
20. Timing of discussion:

After lesson	After playback	Sometime later	Never
--------------	----------------	----------------	-------
21. Use of 'reteach' lesson:

Never	Sometimes	Always
-------	-----------	--------
22. Number of MT lessons given by each student:

1	2	3	4	5
---	---	---	---	---	------
23. Skills specified for students:
Comment
24. Usual format for MT programme, sequence any or all of: lesson, discussion, playback, reteach, next lesson, etc.
.....
25. Studio/room facilities:

Improvised	Improvised with controls outside	Purpose built
------------	----------------------------------	---------------

Comment
.....
.....

MICROTEACHING: ATTITUDE QUESTIONNAIRE

The attitude questionnaire consists of 34 items on various aspects of microteaching. Each item consists of FOUR statements or opinions from which you are asked to choose the one that reflects your own point of view.

EXAMPLE:

- 1 2 3 MT lessons should not be recorded.
4 5 6 MT lessons should be audio-recorded only.
7 (8) 9 MT lessons should be recorded using CCTV with only one camera.
10 11 12 MT lessons should be recorded using CCTV and 2 or more cameras.

If a statement accurately describes your point of view, mark one of the middle numbers i.e. 2,5,8 or 11.

If your view is not accurately reflected by that statement, if it lies closer to the previous statement, mark the lower number i.e. 4,7 or 10.

On the otherhand if your view tends towards the statement following, mark the higher number i.e. 3,6 or 9.

If your view is more extreme than either the first or last statement, mark 1 or 12 as appropriate.

In each case mark only ONE of the twelve options.

Please use PENCIL, if possible. to indicate your answers.

Name

University/Polytechnic/College

Please complete and return this questionnaire even if you do not use any form of microteaching with PGCE students. If appropriate complete the Organisation questionnaire first.

Please return to:

Mr G. Kendall
Department of Education
University of Natal
P.B. 375
Pietermaritzburg 3200

1. PHYSICAL AND TECHNICAL FACILITIES FOR MICROTACHING

1.1 Physical facilities

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | An improvised classroom, with the recorder in the room, is adequate for MT. |
| 4 | 5 | 6 | An improvised classroom is adequate as long as the recording and control are outside. |
| 7 | 8 | 9 | MT requires special room facilities but the recording and the viewing can be in the same venue. |
| 10 | 11 | 12 | MT requires specially built or remodelled studios with separate facilities for recording and viewing. |

1.2 Technical sophistication

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | No recording of lessons is necessary for MT to be of value. |
| 4 | 5 | 6 | Sound recording of MT lessons is adequate for MT to be useful. |
| 7 | 8 | 9 | CCTV recording using one camera is adequate for MT. |
| 10 | 11 | 12 | CCTV recording using two or more cameras is necessary for MT to be of value. |

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | MT to be properly organized needs a very large capital outlay for the provision of several recording studios and playback rooms specially designed with sophisticated CCTV facilities |
| 4 | 5 | 6 | MT can be effectively organized using one or two specially designed recording studios with simple CCTV units; playback can be organized in any venue. |
| 7 | 8 | 9 | MT can be organized in improvised classrooms using simple CCTV or even just audio-recording; playback can be arranged in any venue. |
| 10 | 11 | 12 | MT can be properly organized in improvised accommodation; requires no special facilities as recording is not necessary |

9.3 Provision of sophisticated equipment

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | The CCTV equipment used in MT requires regular maintenance and repair by a technician who is immediately available in order to avoid lessons where there is no recording or the quality of recording is unsatisfactory. |
| 4 | 5 | 6 | The CCTV equipment used in MT requires regular maintenance and repair by a technician who is not immediately available; as long as it works next time it is used. |
| 7 | 8 | 9 | Regular maintenance of CCTV equipment for MT is unnecessary; long as any faults are remedied fairly soon after they appear. |
| 10 | 11 | 12 | The equipment used in MT does not require any regular maintenance and if there is a breakdown it can be repaired at any time. |

9.4 Provision of school children

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | As children are essential for a MT class, the transport and supervision of them is an added expense on the costs of MT. |
| 4 | 5 | 6 | Children are essential for a MT class but the additional expense of transport and supervision is negligible. |
| 7 | 8 | 9 | Children are desirable but are not essential for a MT class; any expense of transport and supervision can be reduced by using peer groups. |
| 10 | 11 | 12 | It is better to use peer group classes rather than children for MT; the additional expense for travel and supervision is unnecessary. |

9.5 Preparation and planning time

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | The preparation and planning of an effective MT programme is so demanding that it becomes impossible with the limited staff and facilities available. |
| 4 | 5 | 6 | MT requires considerable preparation and planning to coordinate staff, students, pupils and the use of recording equipment effectively. |
| 7 | 8 | 9 | The preparation and planning for MT appears formidable but on the whole is quite straightforward. |
| 10 | 11 | 12 | The preparation and planning for MT is not a problem; it is a necessary part of the process. |

B.1 Relation to psychological theory

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | There is no relationship between the skills of teaching and psychological theory. |
| 4 | 5 | 6 | MT does not establish any relationship between the skills of teaching and psychological theory. |
| 7 | 8 | 9 | MT establishes a vague relationship between the skills of teaching and psychological theory. |
| 10 | 11 | 12 | MT establishes a definite relationship between the skills of teaching and psychological theory. |

B.2 MT and educational sociology

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | Educational sociology is not related to the practice of teaching at all, not even in the classroom. |
| 4 | 5 | 6 | Educational sociology is not related to the MT approach. |
| 7 | 8 | 9 | The application of educational sociology in the practice of MT is not particularly significant. |
| 10 | 11 | 12 | MT adds real meaning to the course in educational sociology because students get an opportunity to practice what the course preaches. |

B.3 MT and other courses

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | No attempt should be made to relate MT to other courses in education. |
| 4 | 5 | 6 | MT should be related to those courses which prepare a student for practical teaching and to some extent to the more theoretical education disciplines as well. |
| 7 | 8 | 9 | MT can be a useful experience for students when it is related to those courses which prepare a student for practical teaching. |
| 10 | 11 | 12 | MT is only useful in teacher training if it is related to all other courses. |

9. ECONOMIC FACTORS

9.1 Use of lecturers' time

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | MT is very expensive on lecturers' time, as it requires a lot of personal supervision and tutorials for discussion of the lessons with individual students. |
| 4 | 5 | 6 | MT is expensive on lecturers' time, but more economical use can be made of group discussion with students. |
| 7 | 8 | 9 | MT is no more expensive on lecturers' time than the traditional approach to the teaching of method courses for school subjects. |
| 10 | 11 | 12 | MT reduces a lecturer's time, since if MT is properly organized students will benefit without the lecturer's involvement. |

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | No technician assistance needs to be available. |
| 4 | 5 | 6 | Unqualified assistants are sufficient, to set up the physical arrangement of furniture and cameras. |
| 7 | 8 | 9 | Technical assistants are necessary to operate and manage the equipment as well as set up the furniture, etc. |
| 10 | 11 | 12 | Competent technical assistants must be available to set up the studio, operate the equipment and repair any faults that might arise. |

2. PREPARATION FOR MICROTACHING

2.1 Content of lessons

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | Students should be completely free to choose the content of MT lessons for all teaching skills. |
| 4 | 5 | 6 | Students should be free to choose their content for MT lessons but staff approval should be sought. |
| 7 | 8 | 9 | Students should be provided with a limited list of suitable topics to choose from when preparing MT lessons. |
| 10 | 11 | 12 | Students should be allowed no choice in the selection of the content of their MT lessons, tutors should indicate the content most suited for particular skills. |

2.2 Planning of MT lessons

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | Students should plan all their own lessons themselves. |
| 4 | 5 | 6 | Students should plan their own lessons eventually but initially they should be given some direction. |
| 7 | 8 | 9 | Students should be given topics from which to plan their lessons. |
| 10 | 11 | 12 | Students should teach lessons planned for them. |

2.3 Preparation for MT lessons

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | Students can be introduced to a MT experience with the minimum of preparation. |
| 4 | 5 | 6 | Students are introduced to teaching skills in a general way before using them in a MT session. |
| 7 | 8 | 9 | Students are encouraged to observe and identify teaching skills before practising MT. |
| 10 | 11 | 12 | Before practising in a MT classroom students must be introduced to basic teaching skills and be able to observe them in use and evaluate their significance. |

2.4 Lectures v handouts on skills

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | Handouts on the skills are by themselves sufficient preparation for students before practising MT skills. |
| 4 | 5 | 6 | Demonstration of the particular skills are sufficient preparation for the students before practising the MT skill. |
| 7 | 8 | 9 | Handout material and demonstrations of the particular skills are necessary before the student practises them in MT. |
| 10 | 11 | 12 | Lectures on the rationale of MT skills and demonstrations of the skills in practice are essential before the student practises the skill in MT. |

2.5 Learning of students v learning of pupils

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | Only the need of student teachers should be taken into account when planning MT, whether the pupils learn anything or nothing does not matter. |
| 4 | 5 | 6 | Student teacher and pupils must both benefit from MT lessons, in cases of any conflict the student teacher's need for controlled teaching practice has priority. |
| 7 | 8 | 9 | Student teacher and pupils both benefit from MT, in cases where there could be conflict the needs of the pupils should come first. |
| 10 | 11 | 12 | Only the needs of the pupils should be taken into account when planning MT, if the pupils benefit so will the student teachers. |

3. SUPERVISION OF MICROTEACHING

3.1 Tutor supervision and feedback

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | If MT is properly structured, tutor supervision and feedback are not necessary. |
| 4 | 5 | 6 | Once students have been introduced to MT with some tutor support, supervision and feedback from tutors is not necessary. |
| 7 | 8 | 9 | Tutors need only be available for supervision and feedback if they are required by particular students in regard to their MT lessons. |
| 10 | 11 | 12 | Even if MT is properly structured, tutor supervision and feedback are essential. |

7.2 Preparation for school teaching practice

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | MT is an unnecessary preparation for full classroom teaching; the school teaching practice is of more value without it. |
| 4 | 5 | 6 | MT has little value as a preparation for teaching practice in schools, it need not relate to the periods of school teaching practice at all. |
| 7 | 8 | 9 | MT has value as a preparation for classroom teaching and should precede the school teaching. |
| 10 | 11 | 12 | MT is most valuable as a preparation for classroom teaching and could replace the school teaching practice period. |

7.3 Skills approach to MT

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | The practising of particular teaching skills in MT is harmful as it interferes with the students' own personal approach to teaching in the classroom. |
| 4 | 5 | 6 | The practising of particular teaching skills in MT is a waste of time as there is no transfer to the classroom teaching situation. |
| 7 | 8 | 9 | MT has some value as an opportunity for students to practise particular teaching skills; it is possible that they may learn for use later in the classroom. |
| 10 | 11 | 12 | MT is most valuable as an opportunity of students to practise and learn particular teaching skills in a controlled environment. |

7.4 Behaviour modification approach to MT

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | MT as a means of achieving behaviour modification is harmful and dangerous to the professional preparation of a teacher. |
| 4 | 5 | 6 | MT has little value as a means of behaviour modification since no matter how much attention is given to it students will not significantly change their teaching style. |
| 7 | 8 | 9 | MT has some value as a means of behaviour modification by removing undesirable habits that might interfere with the effectiveness of a student's teaching style. |
| 10 | 11 | 12 | MT is most valuable as a systematic and planned approach to behaviour modification by which students' teaching styles changed to follow a particular teaching model. |

6.3 Confidence of students

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | MT undermines the confidence that students already have in their ability as teachers. |
| 4 | 5 | 6 | MT undermines the confidence of most students, but some are likely to have their confidence increased. |
| 7 | 8 | 9 | MT increases the confidence of most students, but some are likely to have their confidence undermined. |
| 10 | 11 | 12 | MT increases the confidence of students in their teaching abilities. |

6.4 Analytic/prescriptive v creative/originality approach

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | Because of the analytic prescriptive approach of MT, students underestimate the need for creativity and originality. |
| 4 | 5 | 6 | The analytic prescriptive approach of MT is likely to affect the need for creativity and originality, but not significantly at this stage. |
| 7 | 8 | 9 | The analytic prescriptive approach of MT does not affect the students' estimation of the need for creativity and originality. |
| 10 | 11 | 12 | On the other hand, an analytic prescriptive approach, MT encourages and allows students to be creative and original in their approach. |

7. PHILOSOPHICAL FACTORS

7.1 Cosmetic effect of MT

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | There is no value in the 'cosmetic' aspect of MT, students do not become aware of how others see and hear them, the experience can damage their teaching. |
| 4 | 5 | 6 | There is little value in the 'cosmetic' experience of MT, students do not benefit particularly from seeing and hearing themselves. |
| 7 | 8 | 9 | There is some 'cosmetic' value in MT, it is inevitable that students will benefit from seeing and hearing themselves as others see and hear them. |
| 10 | 11 | 12 | One of the values of MT is 'cosmetic', since the students have an opportunity to see and hear themselves as others see them and benefit from this experience. |

3.2 Peer group supervision and feedback

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | The student's peer group can provide the necessary supervision and feedback to the student without any preparation. |
| 4 | 5 | 6 | The student's peer group can provide the necessary supervision and feedback to the student once they have been shown what is involved. |
| 7 | 8 | 9 | The student's peer group may be able to supervise the MT but cannot provide the necessary feedback to the student. |
| 10 | 11 | 12 | The student's peer group cannot provide either the supervision or the feedback. |

3.3 Value of Observation schedules

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | Observation schedules are of no value. |
| 4 | 5 | 6 | Observation schedules are of limited value but may serve some purpose in supplementing tutors' comments. |
| 7 | 8 | 9 | Observation schedules are useful for other students to use so that they can provide the necessary feedback about the lesson. |
| 10 | 11 | 12 | Observation schedules are very valuable for students to use to assess their teaching ability when looking at their own recorded lessons. |

3.4 Assessment

- | | | | |
|----|----|----|--|
| 1 | 2 | 3 | There should be no formal assessment of students for MT. |
| 4 | 5 | 6 | Only informal assessment by tutors about a student's overall success should be given during MT. |
| 7 | 8 | 9 | Tutors should give a formal assessment of a student's success in MT. |
| 10 | 11 | 12 | Tutors should give a formal assessment and it should be incorporated in the final mark for practical teaching. |

4. 'RETEACH' LESSONS

4.1 Teach/reteach interval

- | | | | |
|----|----|----|---|
| 1 | 2 | 3 | 'Reteach' lessons are not necessary, so it does not matter when they take place. |
| 4 | 5 | 6 | 'Reteach' lessons can be several days after the 'teach' lesson and still be effective. |
| 7 | 8 | 9 | 'Reteach' lessons should be planned soon after the 'teach' lesson, but need not be immediately after. |
| 10 | 11 | 12 | The 'reteach' lesson should be planned immediately after the 'teach' lesson. |

4.2 MT Programme - reteach

- 1 2 3 Reteach sessions, where the student teaches the same or similar lesson to a different class, are unnecessary.
- 4 5 6 Reteach sessions should be optional or at the discretion of the supervisor.
- 7 8 9 All students should be required to reteach certain sessions.
- 10 11 12 Reteach sessions should be planned for on every occasion immediately after teaching and viewing.

4.3 Value of reteach lessons

- 1 2 3 When students are required to reteach a lesson, it has a negative effect on their acquisition of that skill.
- 4 5 6 Reteach lessons are of no value at all, the time is better spent practising new skills.
- 7 8 9 Reteach lessons have a limited value only and should be kept to a minimum.
- 10 11 12 Reteach lessons are very valuable and indispensable for reinforcing teaching skills.

5. IMMEDIATE OBJECTIVES

5.1 Objectives

- 1 2 3 MT is merely cosmetic to enable students see themselves teaching.
- 4 5 6 MT is most valuable as an early introduction to classroom teaching.
- 7 8 9 MT is an introduction to classroom teaching with some opportunity to practise particular teaching skills which have been specified.
- 10 11 12 MT is a deliberate attempt to modify student behaviour in relation to certain prescribed teaching skills.

5.2 Objectives

- 1 2 3 It is sufficient for the student to receive support and encouragement from MT.
- 4 5 6 Although receiving support additional skills could be acquired.
- 7 8 9 Although initially supportive certain behaviour modifications should be expected.
- 10 11 12 Certain behaviour modifications must occur as a result of MT.

5.3 Practice and assessment of specific skills

- 1 2 3 It is not possible to identify specific teaching skills in such a way that they can be usefully practised by students.
- 4 5 6 Although some benefit may be gained by trying to identify specific teaching skills, the whole process of teaching is too complicated for it to be of real value.
- 7 8 9 Although students may practise specific teaching skills, it is impossible for supervisors to assess the use of the skills with any reliability.
- 10 11 12 MT enables students to practise specific teaching skills effectively and also provides an opportunity for supervisors to validly assess the skills.

6. EFFECTS OF MICROTEACHING ON STUDENTS

6.1 Effect of MT on the student

- 1 2 3 As a result of MT the student sees teaching as neither intellectually demanding nor as requiring a range of distinctive professional skills.
- 4 5 6 As a result of MT the student sees teaching as requiring a range of distinctive professional skills but not intellectually demanding.
- 7 8 9 As a result of MT the student sees teaching as intellectually demanding but not as requiring a range of distinctive professional skills.
- 10 11 12 As a result of MT the student sees teaching as an intellectually demanding job which requires a range of distinctive professional skills.

6.2 Relevance for students

- 1 2 3 MT is not seen as a relevant experience by students because it is a scaled-down, isolated experience in front of a camera.
- 4 5 6 MT is not seen as relevant by students even when it serves as an introduction to a school classroom experience on teaching practice.
- 7 8 9 MT is seen as relevant to students but only when it serves as an introduction to a school classroom experience.
- 10 11 12 MT is seen as very relevant by students and a good substitute for classroom teaching.

APPENDIX 1.3a

Computer Code for ResponsesOrganisation QuestionnaireCode for Data Card 2

1	SUBJGP	1= Science	2= Soc.Stud.	3= Language	4= Education	5= Arts	6= Maths
1-2	SUBJ	11 Biol. 12 Chem. 13 Phys. 14 Scie. 15 Phys.S 16 Techn. 17 Home E	21 Geog. 22 Hist. 23 Bus.Ad. 24 Acc. 25 Rel.Ed. 26 Soc.St. 27 Econ 28 Comm	31 English 32 Mod. L. 33 Classic 34 TESL 35 Afrik. 36 Afr.L.	41 Guid. 42 Prim. 43 Mid.S 44 F.Ed. 45 Sec.S 46 Slow L. 47 AV Ed	51 Art 52 Design 53 Music 54 P.Ed.	61=Maths
						<u>Recode</u> 5= 5 & 6 ie misc.	
4-5	A4	Number of students:			01 - 99		
		<u>Recode</u> 1= 1 THRU 10 2= 11 THRU 15 3= 16 THRU 20 4= 21 THRU 99					
7	A5A	Number of academic staff:			1 - 9		
		<u>Recode</u> 1= 1 2= 2 3= 3 THRU 9					
8	A5B	Number of technical staff:			0 - 9		
		<u>Recode</u> 0= None 1= 1 THRU 9					
10	A6	MT compulsory:					
		1= Yes 2= No					
12-13	A7A	Student lecture time:			01 - 99 hours		
		<u>Recode</u> 1= up to 1 hour 2= 1 - 2 hours 3= 2 - 3 hours 4= 4 THRU 99 hours					
14-15	A7B	Student practical time:			01 - 99 hours		
		<u>Recode</u> 1= 0 THRU 3 hours 2= 4 THRU 7 hours 3= 8 THRU 99 hours					
17	A8	Length of MT session for group:			1 - 9 hours		
		<u>Recode</u> 1= up to 1 hour 2= > 1 - 2 hours 3= > 2 - 3 hours					
19-20	A9A	Staff preparation time:			01 - 99 hours		

- Recode 1= up to 1 hour
2= > 1 - 2 hours
3= > 2 THRU 99 hours
- 22-23 A9B Staff contact time: 01 - 99 hours
Recode 1= up to 3 hours
2= 4 THRU 6 hours
3= 7 THRU 10 hours
4= 11 THRU 99 hours
- 25-26 A10 Number of students in MT group: 01 - 99
Recode 1= 1 THRU 6
2= 7 THRU 9
3= 10 THRU 11
4= 12 THRU 99
- 28 A11 Mixed or Single subject groups:
1= mixed
2= single
- 30 A12 Length of MT lesson: Recode
1= < or = 5min
2= 6 - 10 min
3= 11 - 15 min
4= > 15 min
5= 1 & 2
6= 2 & 3
7= 3 & 4
8= 1, 2 & 3
9= 2, 3 & 4
2= 1, 2 & 5 ie max 10 min
3= 3, 6 & 8 ie max 15 min
4= 4, 7 & 9 ie max > 15 min
- 31 A13 Type of MT pupils: Recode
1= children
2= peers as child.
3= peers as peers
4= 1 & 2
5= 2 & 3
6= 1, 2 & 3
7= 1 & 3
1= 1, 4, 6 & 7 children
2= 2, 3 & 5 ie peers only
- 32 A14 Number of MT pupils: Recode
1= < or = 5
2= 6 - 10
3= 11 - 15
4= > 15
5= 1 & 2
6= 2 & 3
7= 3 & 4
8= 1, 2, 3 & 4
1= 1 ie max 5
2= 2 & 5 ie max 10
3= 3 & 6 ie max 15
4= 4, 7 & 8 ie max > 15
- 34 A15A Lecture preparation for MT:
35 A15B Handout preparation for MT: 1= Yes
36 A15C Dem. lesson preparation for MT: 2= No
- 38 A16 Supervision of MT: Recode
1= Lecturer
2= Technician
3= Student
4= P/T Asst
5= 1 & 2
1= 1 ie lecturer only
2= 2, 5 THRU 8 ie not lect. only

- 6= 1 & 3
7= 1 & 4
8= 1, 2 & 3
9= 2 & 3
- 39 A17 Use of observation schedules:
1= Never
2= Sometimes
3= Always
- 41 A18 Feedback on MT lesson: Recode
1= Lecturer 1= 1, 4, 5 & 7 ie lecturer +
2= Peers 2= 2 & 6 ie not lecturer
3= Self
4= 1 & 2
5= 1 & 3
6= 1, 2 & 3
7= 2 & 3
- 42 A19 Type of discussion after MT: Recode
1= None 1= 1 & 3 ie group only
2= Individual 2= 2 & 4 ie individual +
3= Group
4= 2 & 3
- 43 A20 Timing of discussion: Recode
1= After lesson 1= 1 ie after lesson
2= After playback 2= 2 & 5 ie after playback
3= Later 3= 3, 6 THRU 8 ie later
4= Never
5= 1 & 2
6= 2 & 3
7= 1 & 3
8= 1, 2 & 3
- 44 A21 Use of reteach lessons: Recode
1= Never 1= 1 ie never
2= Sometimes 2= 2 & 3 ie sometimes/always
3= Always
- 45 A22 Number of MT lessons: 1 - 9
Recode 1= 1
2= 2
3= 3 THRU 9
- 47 A25 Physical facilities for MT: Recode
1= Improvised 1= 1, 2 & 4 ie improv. only
2= Impr.+ ext cont 2= 3, 6 & 7 ie purpose built
3= Purpose built
4= 1 & 2
5= 1 & 3
6= 1, 2 & 3
7= 2 & 3
- 49 A26A Colour TV facilities: Recode
0= None 0= No use of colour TV
1= One camera 1= 1 & 2 ie uses colour TV
2= 2+ cameras
- 50 A26B Black & white TV facilities: Recode

- 0= None
1= One camera
2= 2+ cameras
- 0= No use of b/w TV
1= 1 & 2 ie uses b/w TV
- 52 A26C Audio/live facilities:
0= None
1= Audio only
2= Live only
3= 1 & 2
- Recode
0= No audio or live
1= 1 & 3 ie uses audio
2= 2 ie live only
- 54 A27 Recorder of MT lesson:
0= 1, 2 & 3
1= Lecturer
2= Technician
3= Student
4= P/T Asst
5= 1 & 2
6= 1 & 3 or 4
7= 2 & 3 or 4
8= 3 & 4
9= Not applicable
- Recode
1= 1 ie lecturer only
2= 2 ie technician only
3= 0, 5 & 6 ie lecturer+
4= 3, 4, 7 & 8 ie others
- 56 A28A MT replaces teaching practice:
57 A28B MT before teaching practice:
58 A28C MT in between teaching practice:
59 A28D MT after teaching practice:
60 A28E MT during teaching practice:
1= Yes
2= No
- 62 A29 Assessment of MT:
1= None
2= Informal
3= Formal
4= 2 & 3
- Recode
1= 1 ie no assessment
2= 2 ie informal only
3= 3 & 4 ie formal+
- 63 A30 Type of assessment:
1= Specific
2= Global
3= 1 & 2
9= Not applicable
- 64 A31 Type of assessment:
1= Indiv Lesson
2= Whole course
3= 1 & 2
9= Not applicable
- Recode
1= 1 ie indiv lesson only
2= 2 & 3 ie whole course +
- 65 A32A Maintenance by Department technician:
0= None
1= Dept tech
9= Not applicable
- 66 A32B Other maintenance:
0= None
1= Inst. &/or AV
2= Ext contractor
3= 1 & 2
9= Not applicable
- Recode
1= 1, 2 & 3 ie other tech

67 A33 Correction of TV faults:
 1= Promptly
 2= Eventually
 3= Never
 9= Not applicable

Recode

1= 1 ie promptly
 2= 2 & 3 ie not promptly

68 A34 Frequency of TV faults:
 1= Never
 2= Sometimes
 3= Often
 9= Not applicable

70-71 A35 Number of years of MT:
 01 - 99

Recode

1= 1 THRU 3 years
 2= 4 THRU 5 years
 3= 6 THRU 9 years
 4= 10 THRU 99 years

APPENDIX 1.3b

Attitude QuestionnaireCode for Data Card 1

1-2	UPC	Type of institution:
		01 - 30 = United Kingdom Universities
		33 - 45 = United Kingdom Polytechnics
		50 - 72 = United Kingdom Colleges
		80 - 99 = South African Universities
3	ID	Staff member in institution
5-10	X1	PHYSICAL AND TECHNICAL FACILITIES
5-6	X1.1	Physical facilities
7-8	X1.2	Technical sophistication
9-10	X1.3	Technical staff
12-21	X2	PREPARATION FOR MICROTEACHING
12-13	X2.1	Content of lessons
14-15	X2.2	Planning of lessons
16-17	X2.3	Preparation for MT lessons
18-19	X2.4	Lectures v handouts on teaching skills
20-21	X2.5	Needs of students v needs of pupils
23-30	X3	SUPERVISION OF MICROTEACHING
23-24	X3.1	Tutor supervision and feedback
25-26	X3.2	Peer group supervision and feedback
27-28	X3.3	Value of observation schedules / check lists
29-30	X3.4	Assessment
32-37	X4	'RETEACH' LESSONS
32-33	X4.1	Teach/reteach interval
34-35	X4.2	MT programme - reteach
36-37	X4.3	Value of reteach lessons
39-44	X5	IMMEDIATE OBJECTIVES
39-40	X5.1	Objectives
41-42	X5.2	Objectives
43-44	X5.3	Practice and assessment of specific skills
46-53	X6	EFFECTS OF MICROTEACHING ON STUDENTS
46-47	X6.1	Effect of MT on the student
48-49	X6.2	Relevance of MT for students
50-51	X6.3	Confidence of students
52-53	X6.4	Analytic/prescriptive v creative/originality approach
55-62	X7	PHILOSOPHICAL FACTORS
55-56	X7.1	'Cosmetic' effect of MT
57-58	X7.2	Preparation for school practice
59-60	X7.3	Skills approach to MT
61-62	X7.4	Behaviour modification approach to MT
64-69	X8	RELATION OF MICROTEACHING TO OTHER COURSES
64-65	X8.1	Relation to psychological theory
66-67	X8.2	MT and educational sociology
69-69	X8.3	MT and other courses

71-80	X9	ECONOMIC FACTORS
71-72	X9.1	Use of lecturers' time
73-74	X9.2	Provision of physical facilities
75-76	X9.3	Provision and maintenance of equipment
77-78	X9.4	Provision of school children
79-80	X9.5	Preparation and planning time for MT

Each item 1.1 to 9.5 coded:	<u>Recoded</u>
01 = 1	
02 = 2	02 = 1, 2 & 3
03 = 3	
04 = 4	
05 = 5	05 = 4, 5 & 6
06 = 6	
07 = 7	
08 = 8	08 = 7, 8 & 9
09 = 9	
10 = 10	
11 = 11	11 = 10, 11 & 12
12 = 12	

EDUE - KENDALL
 1 011 030806 0805050605 12060405 020507 080506 06080805 11080706 080705 0607020909
 2 11 09 12 1 0106 3 01 07 09 2 222 110 11 63212 1 10 0 1 01100 23 1311 10
 3 021 020805 0808080805 11080505 020408 080511 11080808 11081108 110808 0808020908
 4 25 15 11 2 223 000 12 63213 1 10 0 2 01010 2110111 01
 5 022
 6 22 17 20 1 0105 1 2 414 4315 00100 22 0321 10
 7 023 020802 0202080805 11051102 110508 080811 11080808 11080808 050908 0208050805
 8 26
 9 024 020806 0503050312 11 0304 080508 080508 05081105 11080805 050505 0408081203
 10 15 14 11 1 06 6 02 06 14 2 233 11 63211 1 01 0 5 00100 22 0211 10
 11 025 020803 0806060508 11050503 010208 060605 11080808 11070807 050805 0508051102
 12 14 12 11 1 01 01 06 14 2 223 000 11 63211 1 01 0 5 01000 2210111 05
 13 026
 14 32 07 10 1 35 03 2 13 110 13 14125 4 00 2 2 01000 43 1 08
 15 031 020903 0202090605 08050805 050508 080511 11080805 11080808 080909 1008021108
 16 11 16 11 1 1 01 06 16 2 234 1 11 63111 1 01 2 5 01000 2 11012 05
 17 033 110811 0505050205 08080502 020205 110805 01080703 07040407 050606 0202040204
 18 21
 19 041 030809 0503110805 11081105 080508 111111 05090808 11081108 050808 0208020808
 20 12 15 21 1 0108 2 01 12 06 2 352 111 12 64512 1 10 1 1 01000 23 1011 05
 21 042 020802 02 02 1202 02 050205 080812 12080808 08 0808080812
 22 13 16 10 1 02 2 12 2 453 11 62711 1 10 0 1 00001 1991011 14
 23 043 091106 0502050405 11050505 020205 060505 11080808 11080802 080808 0505051111
 24 61 36 20 1 0104 2 04 24 09 2 222 110 11 62311 3 02 0 1 01000 22 1021 10
 25 044 060902 0302050305 11050505 020508 080505 11080811 11080808 050808 0805021111
 26 21 16 10 0 03 00 03 08 2 224 11 62311 2 02 0 1 01000 22 1011 05
 27 045 071009 0505080606 11070604 080509 070609 11100908 11081008 080505 0505020202
 28 61 36 21 1 0606 3 06 36 09 2 232 111 11 44211 3 02 0 1 01000 22 1021 01
 29 046 091208 0805080606 11111201 050508 080508 11090909 12090909 081111 0906060811
 30 22 15 12 1 04 05 05 15 2 2 61 43521 3 02 0 3 00001 2 1011 03
 31 047 040906 0202020103 11031102 020405 030506 11030808 11080407 050506 0508051103
 32 31 26 21 1 0307 03 10 08 2 232 110 53 54311 2 02 0 1 01000 2211211 05
 33 051 050811 0806080505 11080505 0205 080211 10080705 08070707 090708 0508050808
 34 21 09 13 1 12 2 01 12 09 2 222 53 63212 3 10 0 1 10000 22 1011 04
 35 052 081008 0808050505 11050902 020307 060506 11070908 11050808 070708 0805050908
 36 22 14 12 1 07 2 02 08 14 2 223 111 12 62222 3 10 0 2 01011 1991011 06
 37 053 110811 0505051109 05050502 020202 010205 0802 02 0202020202
 38 32
 39 054 020211 0505020405 10070805 111110 11101110 11081108 100908 0805020806
 40 54 14 10 1 0102 2 01 02 14 2 433 110 62 64122 00 2 2 1011 10
 41 055
 42 12 13 0 03 1 02 11 2 133 111 12 44511 3 12 0 2 01000 2110112 08
 43 061 020908 0605070802 10050206 040405 080911 06100805 11070807 080504 081108 08
 44 12 15 10 1 0118 2 03 06 03 2 414 110 62 64216 1 01 0 7 01100 1999999 02
 45 062 010202 0802050508 08110202 02 050211 11110811 0811 050808 0811 0208
 46 61 10 10 0 04 1 06 2 412 100 11 12114 1 00 2 9 00100 1999999 02
 47 063 060806 0605080807 09061108 080508 110910 10081109 08071008 050808 0808050505
 48 43
 49 064 020202 0502081105 11050505 050508 050808 11080811 081108 080808 0811 0808
 50 13 17 10 1 0104 4 05 17 2 224 100 61 63112 00 2 9 01000 2 10
 51 065 050805 0505080808 09061105 080509 060707 10090811 11081008 090504
 52 42
 53 071 060305 0804100711 11051102 080910 080707 11080807 10070808 090705 0907050406
 54
 55 081 050403 0704040101 05040501 010104 060603 05070606 06060908 040704 0707100906
 56 43 15 10 1 0102 1 02 02 15 1 122 111 12 43 22 1 00 1 1 01000 1991011 03
 57 091 090909 0909050506 12050505 08 11110805 110808 08 0808020808
 58 12 16 12 1 0105 3 02 2 222 011 52 432 1 3 01 0 2 01000 22 1011 08
 59 101 020805 0403020305 06080502 020202 080308 11080805 11081105 080805 0211050811

60	21	20	90	0	0005	2	01	05	10	1	222	001	12	43523	1	10	0	6	01000	1991011	03			
61	102	020809			1001020203				10110102	010205	030610	12090808	11081009	020402	0708021211									
62	13	38	11	1	0001			04	04	2	121	52	44611	1	10	0	2	01000	1991011	10				
63	103	020808			08080508				11071105	030507	080811	11080811	11081108	080808	0808021111									
64	61	39	41	1	0008	2			03	2	332	011	13	64111	1	10	0	3	01000	3111011	08			
65	104	020910			08050805				11051002	110508	080706	11080911	11080808	110811	0508020805									
66	22	10	10	0					10	2	232	100	12	63211	1	10	0	1	01000	22	1012	04		
67	111	020806			0505050405				11080402	030509	050305	11080805	11080707	080505	0208051111									
68																								
69	112	061008			0604060303				10100803	030307	100610	10080907	07070707	070708	0706060910									
70	21	10	10	0	0109	3			10	10	2	332	111	12	43211	3	02	0	2	01000	2	10111	13	
71	113	080909			0707090904				12121101	050609	120912	12090908	081208	121208	0105010804									
72	54	05	11	1	0303	1			05	2	341	101	11	43221	10	0	2	01000	23	1021	03			
73	114	071108			0808110805				11070505	020205	080509	11081108	11080808	050208	0806020509									
74	22	09	11	1	0101	1	01	06	04	2	2	4	111	12	43211	1	10	0	2	01000	22	10111	07	
75	121	020805			0705050405				11051202	050710	070307	06070703	11080707	050505	0508081108									
76																								
77	122	080811			0505101105				11050905	080508	110810	11090909	11081108	100805	0208020508									
78	54	46	11	1	0201	1	02	35	03	2	313	111	13	63221	10	1	6	00100	21	11111	04			
79	123	010102			0902050302				11050505	020208	080808	11080508	080807	050805	0811051008									
80	15	22	20	1					03	08	1	426	11	64112	00	2	9	01000	22	101	08			
81	124	020202			0806060704				11080708	080809	040406	11070705	08070707	070705	0208050805									
82	16	08	10	1					08	2	442	1	44112											
83	125	030802			1005030306				10060805	030208	080809	11090810	10081007	090707	0808081110									
84	11	30	21	1					10	2														
85	132	051107			0304010808				08101004	080510	080504	10110808	11060707	07	03	0311110204								
86	42																							
87	133	020404			0605050305				05080805	050508	080505	11080811	08080808	070507	0210050805									
88	13	13	11	1	0105	1	01	01	10	2	266	111	52	13312	1	02	1	6	01001	23	11011	10		
89	134	020202			0802111105				02050202	020208	080211	110905	08080707	080608	0508080809									
90	61	18	10	1	06	2	01	07			2	653	011	11	64712	1	00	3	0	01100	22	10	1	03
91	141	020811			0405030105				11050505	080510	050504	06080911	11080806	070705	0505020509									
92	31	24	21	1	0302	2	02	03	05	2	214	110	52	64511	3	10	2	2	01000	23	11111	04		
93	151	080805			0302020502				11020802	110911	060808	11080908	11080808	080505	05020911									
94	32	27	30	1	06	3			06	05	1	332	011	13	64532	3	22	1	1	01000	21	1011	10	
95	152	020807			0504051005				11050705	081110	080810	06091007	08071010	060706	0808050811									
96	11	21	41	1	0204	3			24	06	2	131	110	12	63232	3	01	0	3	01000	23	11011	07	
97	153	020806			0405050805				10080702	110510	040510	11080808	08080808	050508	0205040805									
98	13	19	20	1	0104	4	02	07	06	2	251	111	12	43222	1	01	0	1	00001	1991011	08			
99	154	110811			0505051105				11050505	020508	050508	11080808	08080808	020808	0805020808									
100	22	13	20	1	06				02	06	07	2	222	13	43222	3	10	0	1	01000	2	21011	05	
101	155	020802			0503030104				11080202	020208	050205	11111108	11080208	110805	0205051105									
102	31	99	10	1	0103	3			10	07	2	822	101	11	63211	3	01	1	1	00001	1991011	05		
103	156																							
104	12	07	11	1	0104				01	04	07	2	332	110	12	64521	1	01	0	1	01000	23	11011	07
105	161	020807			0808060405				11070705	020507	050605	080908	11080508		0805081009									
106	61	22	10	1					04	2	421	111	11	64212	3	20	0	3	01000	22	0111	01		
107	162	020808			0806110805				10071105	080508	080511	111108	11080907	0910	0806020805									
108	32	30	11	1	03	2	01	03	07	1	732	11	64211	3	10	0	1	01000	22	10131	01			
109	163	020808			0802050102				11050401	0202	080508	0811	11080808	020202	0211020811									
110	13	12	10	1	04				04	12	2	323	100	11	64711	1	01	0	6	01000	21	1022	09	
111	171	030707			1006101005				10050602	080810	080811	11080806	11081108	110805	0508020805									
112	12	28							09	2	414													
113	172	030909			0202080506				12050504	070607	060607	12081012	09080708	070905	0806030911									
114	51	16	22	1	18	2			20	16	2	654	011	62	64222	6	20	0	0	01001	22	1011	06	
115	173	010301			0805050705				10080805	060509	060610	12101109	12071009	091008	0810040612									
116	21	10	10	1	0818	1	06	30	10	2	44	111	12	44128	6	20	0	7	01000	2	21011	12		
117	174	0811							1111															
118	61	11	10	1	05				11	2	232		11	4311	3									

120 22 12 11 1 03 3 02 03 12 2 152 51 64221 3 20 0 2 01000 22 1011 05
121 176 081111 1108080508 11050105 050511 110811 11080802 08050808 080805 0205010805
122 31 12 12 1 03 3 03 12 2 33 100 12 64221 3 20 0 2 01000 22 1011 05
123 181 020807 02021111 11020502 020508 0505 111111 11080807 050808 0808021111
124 32 10 11 1 02 2 01 02 10 2 422 000 11 63521 1 01 0 1 00100 1991012 08
125 182 020708 0805111105 11051102 111110 080410 081108 100808 0210050705
126 54
127 191 020808 0805020505 05050505 050508 080508 05080805 08080808 050808 0508050808
128 11 10 11 0 06 02 06 02 2 232 011 11 63211 1 10 0 2 01000 22 0111 05
129 192
130 32 18 11 1 02 2 02 2 454 111 11 64111 11 2 7 01100 2 1012 07
131 193
132 21 12 10 0 06 2 05 06 12 2 45 000 12 44112 1 01 0 2 01000 2 1012 05
133 201 020202 050505 05 05050502 050108 080511 12010805 12050808 080805 0608081208
134 42 0 322 001 61 6362 1 01 0 6 00001 23 1011 06
135 211 020806 040302 12010402 020407 050708 070906 08080807 020502 05081111
136 12 07 11 1 04 00 04 07 2 232 000 11 43211 4 01 0 2 01000 1990111 05
137 212 050812 0505050505 12070805 050808 110811 11080805 11080808 110805 0805021111
138 13 05 12 1 0102 2 01 02 05 2 151 100 51 63511 3 10 0 2 01000 2210111 05
139 221 070706 0607050406 10070605 030207 080910 11100909 12080908 100905 0907030910
140 34 15 11 1 1408 1 02 04 02 2 521 101 12 44111 1 01 0 6 01000 2 1011 08
141 222 020311 0508021108 02080202 020205 050811 11111111 11081108 080808 0208020811
142 22 10 11 1 04 3 04 04 10 2 322 110 51 44212 1 01 0 2 01100 21 1011 06
143 223 030908 0702061105 10090505 020207 060812 10081108 07070808 080810 0805020808
144 21 12 11 1 0206 2 06 08 12 2 323 101 12 63121 1 10 0 2 01110 32 0111 04
145 224 091008 0606080504 10061005 050508 070305 10030707 11060706 070707 0209050705
146 31
147 225 020807 0705100302 12040408 020105 090711 09080906 11070908 090608 0708030808
148 32 10 10 1 0103 2 01 04 10 2 352 100 11 64111 1 00 2 9 01000 3210119 01
149 231 010202 08080808 11 0402 020205 0508 11080805 080205 08 11 0811
150 12 10 11 1 1 10 2 422 111 12 64111 3 00 2 9 01000 2211029 03
151 232
152 32 30 30 1 2 12 08 06 1 434 1 13 43111 1 00 2 9 01000 2 19999 03
153 234 080906 0605121209 12091206 120912 121012 12121206 12081209 121212 0908031012
154 44 90 91 1 2020 1 20 20 12 1 442 111 13 64532 1 10 0 3 01000 3 11012 12
155 235 110211 0505080505 11081102 020508 080511 11020808 08050805 080811 0202021102
156 21
157 236 0202 0807080805 1205 07 080507 080809 11080908 080808 090507 08 0811
158 11 20 1 0018 2 18 11 2 422 110 1 44121 1 00 2 9 01100 42 9999 06
159 241 101110 0405070805 12050605 030308 060311 11080908 12080808 091008 0805021008
160 61 15 11 1 0107 7 01 01 15 2 233 100 12 63221 3 20 0 2 01000 22 1011 12
161 242 071012 0503110906 12050902 090510 070811 11080906 11071008 111109 0504020705
162
163 251 051111 0905080805 10110505 080711 1111 020703 08050808 050805 0205050201
164 32
165 252 020202 0808050208 11050502 020202 080202 11080811 08050808 080505 0811051111
166 61 18 10 1 20 1 20 20 02 1 434 111 12 63111 1 00 2 9 00100 2 20119 06
167 261
168 32 36 73 1 1010 2 10 70 07 1 352 111 11 43119 3 10 1 2 01000 23 1012 12
169 271 020202 0802020305 11050502 030308 111107 11080908 081108 110708 0811 1111
170 32 12 10 0 12 1 223 12 73112 1 00 2 9 01000 1999999 10
171 281 100811 0805050505 11050805 020206 080510 10081111 11060808 060905 0508020608
172 13
173 282 030808 0502090505 11051105 050508 080808 11080808 08080808 080808 0808050808
174 61 19 10 1 10 1 10 19 2 324 11 63111 1 00 2 9 01000 2 19999 12
175 291 020202 08051105 080511 11121109 11081108 090808 0612030612
176 22 07 10 1 03 1 03 2 7 1 64114 00 2 9 01000 199 1 15
177 292 050806 0703080606 10080702 070509 100909 0609 09 11050707 080806 0806050309
178 11 12 11 1 0103 3 04 12 2 252 111 62 63221 3 01 0 6 00100 2 11022

180	13	11	11	1	03	01	03	11	2	222	001	51	63511	3	01	0	3	01000	2211011	04
181	301	030807	060505	05	0505	0905	0507	0808	0808	0808	0808	0808	0808	0808	0808	0808	0808	0808	0808	0808
182	11	99	11	1	0003	3	08	001	51	63221	1	10	0	2	00100	22	01	1	10	
183	302	020805	0808050108	11050505	020508	050211	11080802	11080808	080808	080808	080808	080808	080808	080808	080808	080808	080808	080808	080808	
184	14	99	10	1	0103	3	04	20	08	2	101	12	43511	1	11	0	4	01001	22	1012
185	331	080808	0205110808	12091205	100809	080711	12080805	08080808	070812	0808050808	0808050808	0808050808	0808050808	0808050808	0808050808	0808050808	0808050808	0808050808	0808050808	
186	31																			
187	332	041008	0202071007	07050802	020208	080708	11050811	08070806	08	08	0508020805	0508020805	0508020805	0508020805	0508020805	0508020805	0508020805	0508020805	0508020805	
188	43																			
189	333	020802	0205110805	11080505	080508	080811	12081108	11080808	080808	080808	080808	080808	080808	080808	080808	080808	080808	080808	080808	
190	32	07	10	1	0006	2	01	06	07	1	122	111	12	63222	10	0	6	00001	2	10112
191	341	030303	0704030510	09050502	050508	080707	06080808	10080707	100911	0810050809	0810050809	0810050809	0810050809	0810050809	0810050809	0810050809	0810050809	0810050809	0810050809	
192	45	30	20	1	1010	3	02	20	15	1	253	001	12	63111	1	22	3	6	01000	2310111
193	351	080811	0808080808	11080805	080508	080808	11080808	08080808	110805	0805021108	0805021108	0805021108	0805021108	0805021108	0805021108	0805021108	0805021108	0805021108	0805021108	
194	45	18	12	1	0118	2	01	18	1	424	010	52	63221	3	20	1	1	01000	2210111	04
195	361	020810	0202020805	11080802	020205	050411	11111111	11081108	111108	0808021108	0808021108	0808021108	0808021108	0808021108	0808021108	0808021108	0808021108	0808021108	0808021108	
196	52	50	41	1	0218	1	02	72	12	2	233	111	11	63111	1	10	0	3	00100	1991011
197	371	020811	0502111007	11041102	110510	080710	10080711	11081107	10	08	0805020808	0805020808	0805020808	0805020808	0805020808	0805020808	0805020808	0805020808	0805020808	
198	17	15	71	1	14	1	54	09	08	2	422	110	51	63112	1	10	0	8	01110	22
199	372	0208	0505081105	110411	0505	050811	11081102	08081108	121209	0508020205	0508020205	0508020205	0508020205	0508020205	0508020205	0508020205	0508020205	0508020205	0508020205	
200	52	10	10	2	20	20	2	771	011	63	64721	1	02	0	3	00100	11	0112	02	
201	373	020811	0502110107	11040202	020501	080701	01080411	02050204	01	05	0805020808	0805020808	0805020808	0805020808	0805020808	0805020808	0805020808	0805020808	0805020808	
202	45																			
203	381	020202	0805020505	11050802	110808	080208	11081108	08080808	081105	0808	1111	1111	1111	1111	1111	1111	1111	1111	1111	
204	14	07	10	1	2	07	2	771	011	12	63111	00	2	9	01000	22	9999	04		
205	382																			
206	26	09	10	1	0610	3	05	16	09	2	776	111	12	63222	3	01	0	1	01000	2110111
207	383																			
208	31	20	11	2	0102	2	01	05	06	2	332	100	11	63221	3	10	0	2	00100	2110111
209	384																			
210	32	40	20	1	10	2	525	001	11	63123	3	00	2	2	00100	2110111	10			
211	385	020802	0808110805	11051102	020508	110511	11	1108	11050808	081008	0808021005	0808021005	0808021005	0808021005	0808021005	0808021005	0808021005	0808021005	0808021005	
212	53	16	10	1	0303	1	03	06	16	1	234	100	12	63521	1	10	0	3	00100	22
213	386	020802	0505050205	11051102	020205	080508	11081111	11080808	101108	0808100608	0808100608	0808100608	0808100608	0808100608	0808100608	0808100608	0808100608	0808100608	0808100608	
214	17	25	21	1	21	3	15	2	6	110	12	64814	10	0	3	01000	1	0111	06	
215	387	111111	0505111109	11081102	080508	110812	11020805	08080908	110808	0102020205	0102020205	0102020205	0102020205	0102020205	0102020205	0102020205	0102020205	0102020205	0102020205	
216	22																			
217	388	080803	1004071001	11081105	090610	080910	10090908	11081108	050808	0411051009	0411051009	0411051009	0411051009	0411051009	0411051009	0411051009	0411051009	0411051009	0411051009	
218	61	28	21	1	0209	2	06	06	15	2	223	111	12	64121	3	01	1	5	01100	21
219	389	020211	08050701	11060405	0302	050406	11070802	11070707	080508	0511	0811	0511	0811	0511	0811	0511	0811	0511	0811	
220	34	17	10	1	04	2	01	04	10	2	252	11	63113	1	00	2	9	01100	1219999	05
221	390	020811	0805110805	10070904	080508	110808	11081106	11081108	110810	0508020511	0508020511	0508020511	0508020511	0508020511	0508020511	0508020511	0508020511	0508020511	0508020511	
222	17	20	21	1	0814	2	14	42	10	1	312	111	62	63224	1	10	0	3	01000	22
223	391	080808	0305050505	09080804	030405	060607	10090806	09080707	070711	0805031109	0805031109	0805031109	0805031109	0805031109	0805031109	0805031109	0805031109	0805031109	0805031109	
224	21	10	10	1	0103	3	02	03	10	2	222	101	11	63211	3	01	0	1	01000	22
225	392	020808	0202080505	11091102	050509	080205	02020802	05020505	020502	0208050202	0208050202	0208050202	0208050202	0208050202	0208050202	0208050202	0208050202	0208050202	0208050202	
226																				
227	393	080808	0808080205	08050502	080509	080811	11070808	11070808	09	05	0205020904	0205020904	0205020904	0205020904	0205020904	0205020904	0205020904	0205020904	0205020904	
228																				
229	394	080809	0806090905	11081108	080511	060809	11080905	08081110	110905	0508020508	0508020508	0508020508	0508020508	0508020508	0508020508	0508020508	0508020508	0508020508	0508020508	
230	52																			
231	401	060806	0605040405	10071005	080611	060605	11091109	10080708	080808	1008060905	1008060905	1008060905	1008060905	1008060905	1008060905	1008060905	1008060905	1008060905	1008060905	
232	52																			
233	411	081111	0802020105	08111102	080811	080511	11081111	11051108	111111	0205020805	0205020805	0205020805	0205020805	0205020805	0205020805	0205020805	0205020805	0205020805	0205020805	
234	45																			
235	412	030603	0603101004	12	0805	080505	110810	12090807	10091008	0508110711	0508110711	0508110711	0508110711	0508110711	0508110711	0508110711	0508110711	0508110711	0508110711	
236	52	08	10	1	0309	1	03	12	08	2	322	110	13	63112	1	00	1	1	01000	2
237	413	020909	0202020105	11081108	020205	080811	11090912	11081109	100408	0807051010	0807051010	0807051010	0807051010	0807051010	0807051010	0807051010	0807051010	0807051010	0807051010	
238	14	25	41	1	0020	06	20	04	1	423	111	11	43111	00	2	9	01000	2119999	05	

300	15 21 0	20 3 25 20 08 1 231 111 13 14221 3 20 0 2 00100 21 1011 07
301	632 02	0505050505 11080805 0505 11080808 11080808 080805 0811 1105
302	22 27 20 1	0103 3 02 03 14 2 233 101 12 63121 1 00 2 9 01000 21 9999
303	641 111106	0606120606 12111105 020505 111211 12081111 08081111 110808 0808081111
304	10 20 1	0416 1 40 20 10 2 451 111 12 63222 2 01 1 1 01000 22 0111 01
305	642 010102	0802080505 11050805 020211 050508 05080805 08080808 080811 0805050811
306		
307	651	
308	14 18 21 1	06 3 03 03 1 332 11 63611 1 10 0 1 01000 2 10111 03
309	652 040806	0505080505 11091102 050509 110508 11080805 08040808 080808 0508080205
310	42	
311	653 020806	0205050303 11071102 010109 080508 11080708 11080808 090808 0808050811
312	45 99 81 1	05 3 1 133 12 43211 1 10 0 1 01000 2310111 08
313	654	
314	45 99 21 1	0606 3 99 12 09 1 243 111 62 63211 3 01 1 3 00100 2110111 05
315	655 060910	0605030205 11080502 010205 060303 11080905 11080808 080808 0804051111
316	15 11 1	0006 2 06 15 1 233 100 12 63511 2 02 0 5 01011 2310111 06
317	661 020802	0804110505 11071005 070508 070611 11090909 12081108 090808 0808050808
318	11 10 1	0304 1 08 11 2 323 101 11 44621 1 10 1 1 01000 2211121 03
319	663 020907	0904080705 09050806 080509 100811 10081010 11081108 090509 0907040906
320	32 11 21 1	0206 2 02 06 11 1 222 110 13 62222 1 10 0 6 01000 2 10111 14
321	664 020808	0808050506 08080801 080508 040508 11080808 11050808 080808 0508050205
322	21	
323	665 110211	0704090805 11090505 080507 070609 05080907 09080808 070707 0306060705
324	61 18 21 1	0103 2 04 06 09 2 322 111 12 63112 1 02 2 1 01000 3210111 10
325	671 020802	0505050508 11110505 0802 080211 0811 11080805 0508110211
326	32	
327	672 020205	0202020105 06050802 02 050509 11080908 11111108 080805 0808051011
328	12 10 11 1	2 02 01 10 1 722 12 63511 1 02 2 3 01000 12 1011 10
329	681 080202	0805020808 11051102 080508 050511 11080805 11081108 110808 0208050808
330	07 20 1	0103 05 01 07 1 431 100 32 13311 1 00 2 9 01000 12 9999 04
331	682 0208	0505080808 11090505 020208 050508 11080805 11080808 070911 0811020808
332	22 12 10 1	0306 03 02 2 336 111 12 64121 1 00 2 9 01000 21 0111 05
333	691 020807	0504070907 11091207 080607 080809 12080907 11081010 100912 0808040808
334	12 11 1	0208 2 14 10 12 2 323 111 13 6 221 1 10 0 5 01000 2210111 05
335	692 020202	0802020208 11 0805 020508 080811 09080909 080808 080808 0808050808
336	61 09 30 1	06 1 03 06 09 2 422 111 12 641 1 1 00 3 1 01000 2319991 04
337	693 050805	0805050505 11061105 080509 080810 11080806 11081108 090805 0808020805
338	32 08 30 1	03 2 10 08 2 522 110 11 43125 1 00 2 9 01110 12 9999 10
339	694 010803	05 05 0805 010104 050304 071005 12080708 090910 0808050708
340	14 07 21 1	0103 03 07 2 322 101 13 63511 1 10 0 3 01000 2110112 01
341	695 020205	0404070405 11050604 020207 080707 11070908 10080808 050808 0611050809
342	61 10 30 1	0100 2 01 10 10 2 422 111 11 64111 1 00 2 1 01000 2 9999 06
343	696 070609	0209061206 09080705 020202 110905 05090906 07080305 020904 0809080906
344	54	
345	701 111111	0703100705 11080605 100509 050507 05080909 11080808 070702 0205020604
346	61	
347	702 020208	0805080505 11050801 020108 051108 08081111 08080808 0808 0205050805
348	11 05 22 1	0108 2 03 09 02 2 431 110 11 64111 3 00 2 9 01000 2 19991 02
349	703 020811	0505111105 11081102 080811 080808 11020602 08050808 020511 0208020505
350	42 49 32 1	0203 06 01 1 211 111 53 63232 1 10 0 2 00001 21 0111 06
351	711 060808	0705080905 11090706 050508 090810 06080907 09080808 080808 0806040705
352	26 10 11 1	0610 1 10 2 423 111 12 44221 3 10 0 2 01000 22 011 07
353	712 071105	020301 01 12010909 0104 0912 11 1108 12080811 010112 0805021111
354	32 20 22 1	36 4 01 24 20 1 234 011 12 64213 3 02 0 1 01110 2220111 06
355	721 080811	0505090505 11100405 050509 070210 11080906 09070807 080805 0605040708
356	14 30 12 1	0101 1 04 02 2 312 111 52 64322 3 10 0 5 01000 211 1 10
357	801 020211	0805110803 11090804 020307 091009 080811 11100909 110909 0305020705
358	45 99 94 1	0404 2 99 05 1 131 111 12 63214 5 22 0 7 01000 23 1312 16


```

360 41 10 11 1 0404 2 02 08 05 1 121 1 12 63214 5 12 0 2 01000 2111111 01
361 803 080908 0303050705 11080906 020508 080710 11111011 08091109 080906 0805050809
362 14 05 11 1 0404 1 02 05 05 1 151 110 12 63224 3 20 0 2 01000 2110122 02
363 804 081111 0205110211 11050502 050508 0805 11080808 11080808 080508 0502020805
364 31 05 11 1 0404 2 03 06 05 2 151 110 12 632 4 3 20 0 2 01000 13 0191 04
365 805 080808 0304020205 11020303 020305 070404 04080805 08070503 020808 0505050808
366 31 60 51 1 0504 2 00 01 05 2 121 110 11 63214 1 01 2 01000 2310112 04
367 806 071108 0805061006 11080804 030508 080905 11070708 07050807 070808 0305050908
368 34 06 21 1 0305 2 03 05 06 1 225 111 12 63223 2 20 0 2 01000 2310112 03
369 831 020802 02020503 12101102 020508 080408 11070808 08080808 100808 0408021106
370 45 99 20 1 0104 2 03 24 06 1 135 110 13 63223 1 10 0 1 01100 1990111 10
371 832 020808 0505050704 11080905 020207 080810 11080910 11080808 080808 0607051108
372 45 99 20 1 0104 2 30 70 06 1 131 111 13 63223 1 10 0 1 01100 2110112 15
373 871 080805 0505110805 11081105 111111 101011 11081108 10081110 100808 0208050808
374 45 99 60 0 0003 1 05 1 331 011 13 43211 1 01 3 1 00100 2210111 04
375 872 080802 0205050805 11050805 050508 080808 111111 11080808 081105 0508080808
376 45 99 50 0 0006 3 04 36 06 1 121 011 13 13211 1 01 1 1 01111 22 0112 04
377 873 090909 0906091106 11101109 090510 081110 11090906 11091109 060806 0805051008
378 35 60 10 0 0015 1 00 00 04 2 431 000 13 42211 1 00 1 1 01100 2210122 04
379 807 081111 0605061105 11080405 080508 080508 11110808 11081108 080808 0805021105
380 36 08 11 1 0104 2 00 05 05 1 321 110 11 63214 3 20 0 2 01000 1110111 02
381 808 080908 0205051104 12080504 110508 070511 11081111 11080808 080808 0805021105
382 35 10 12 1 0606 1 02 06 05 2 121 110 12 43115 3 02 0 2 01000 11101 1 06
383 809 091009 0304080805 05071001 050509 100810 080812 12080908 090805 1005010808
384 12 06 21 1 0106 2 02 06 05 2 151 110 52 63214 6 02 0 2 01000 11110 1 04
385 811 050911 0808060905 11111105 020508 080810 11081008 11081009 111007 0808020805
386 32 06 21 1 0206 2 00 06 06 1 121 11 63213 2 20 0 2 01000 231111 03
387 812
388 32 04 22 1 0406 2 01 01 04 1 321 10 63214 4 01000 21101 1 02
389 841 101012 0804061106 12051006 060407 100606 12101007 080808 100810 0906010809
390 61 10 11 1 0003 3 03 03 10 2 322 100 53 63123 2 01 1 2 01100 2211012 10
391 874 020702 0205080805 05051108 020208 111111 11081108 11081111 020508 1108021105
392 45
393 813 080808 0605050212 1103 06 080409 060309 12091212 12091212 09 09 0906121212
394 32 05 10 1 0204 2 02 03 05 1 121 100 12 42223 1 20 0 2 01000 2 11011 02
395 911 081111 0205081007 11070908 090508 090910 11111005 11081108 101011 0805051008
396 84 1 0116 1 04 16 15 2 123 111 13 63214 3 02 0 4 01110 3110112 09
397 912 080708 0305080702 100911 120510 080310 11080909 09080908 100908 0907060908
398 45 60 99 1 0412 1 16 08 20 1 214 111 73 13221 2 02 1 4 01000 3220311 01
399 913 111111 0205060505 11051111 111111 080211 11111111 11081111 111108 0802020805
400 45 80 89 1 16 1 16 48 20 1 124 111 73 63222 3 02 0 4 01010 3210111
401 914 111111 0505090906 11071111 080610 100911 11100909 11091009 111110 0702030805
402 45 99 89 1 16 1 16 48 20 1 224 111 73 63223 3 02 1 4 01010 3210111 06
403 915 111111 0505110808 11111111 111111 080811 11111111 11081111 111108 0802080811
404 45 99 89 1 1 12 1 124 111 13 63234 3 02 0 4 01110 3311022 02
405 881 111011 0605111106 11 0908 080709 081111 11081105 10081109 111111 0202020705
406 45 99 9 1 0101 1 02 06 40 2 167 111 53 64611 10 1 2 01000 4111021 01
407 882 081108 0707111106 11071007 070508 080708 11071111 11071007 100707 0706040709
408 61 16 22 1 10 2 222 110 12 63211 1 01 0 3 01000 2120122 01
409 883 110508 0808111108 11080810 100511 080811 11050807 11081108 101108 0508020805
410 24 25 11 1 0101 1 08 1 132 111 62 63323 1 10 1 3 01000 2110112 01
411 931 030812 0606121209 12081208 080508 111109 11080805 11081108 111108 0303020805
412 99 91 1 0106 30 99 10 1 142 100 63 63223 5 01 0 3 01010 21 0122 03
413 941 020811 0808080505 11081111 110508 111108 08081108 08080808 081105 0808050508
414 36
415 942 020811 0805080505 0808 08 110511 110808 08050508 08080811 111108 1108050508
416 36
417 991 111111 0205111111 11081111 110811 111111 11081111 11081111 111111 0502020805
418 35 09 10 1 0102 2 12 05 09 2 252 110 12 64125 1 20 0 3 00100 21 0122 02

```

```

420 31 26 11 1 0206 2 06 08 05 2 234 100 12 13222 1 10 0 5 01100 2121111 08
421 993 080808 0505060905 11100807 090509 080911 11080810 01081009 090905 0505050207
422 36 24 10 1 0510 2 02 02 24 2 222 000 12 43222 3 12 0 5 00100 2 20122 09
423 994 110811 0505111107 08050202 080508 110507 11081007 11081108 091007 0508020206
424 22 15 10 1 0505 3 10 10 05 1 222 111 12 43225 1 20 1 5 01100 2210112 03
425 842 050805 0505030809 06060905 050510 080309 11080908 11080807 101008 0508050808
426 31 26 10 0 05 2 02 02 10 2 267 111 52 63522 22 0 0 01000 2311012 08
427 821 01 03 01010811 1208 08 080511 110808 11080811 11081105 080502 0508020202
428 45
429 891 111105 0202050808 11050506 010108 110808 11111110 10091109 070708 1005081008
430 45 72 40 1 0302 2 06 1 222 111 11 63215 3 01 0 1 00100 31 1011 04
431 874 080803 0205061106 12110505 080507 080511 12100808 11081108 111111 0908021108
432 45 80 0 05 1 251 010 13 63211 1 02 0 1 10000 2211011 04
433 892 081111 0505111105 11071011 020207 111011 11111108 11081111 111011 0506050808
434 45 41 1 0101 1 30 60 05 1 121 011 12 53215 2 01 0 1 01010 3111011 04
435 961 020810 0807110705 08050905 080508 080811 11101008 11081108 09 0808020906
436 15 15 11 1 03 2 06 2 223 100 13 64622 3 02 0 5 00100 2310111 01
437 962 030909 0306100703 10100402 010207 100807 11070806 07071008 070708 0509050908
438 22 97 10 1 05 2 221 100 12 13211 3 02 0 1 1 0131 02
439 963 081109 0503040208 1107 04 02 05 090508 07 05 10070807 04 05 0506060807
440 61 11 10 0 03 2 222 100 11 43211 3 02 0 1 01000 22101 1 01
441 964 081103 0906061105 09081105 080611 080912 12091212 12081108 111111 1109051009
442 45 40 10 1 1 06 1 132 000 13 14222 3 02 0 1 01000 21 0111 02
443 943 080811 1106111106 11071111 110811 090511 11081108 11080808 111111 0506081009
444 45 22 11 1 2 20 15 21 1 434 100 13 63221 3 10 0 2 01000 210111 11
445 944 121111 0805111108 11051111 081111 081111 11081105 11111111 111111 0208020805
446 45 99 90 1 0218 1 02 18 15 1 323 111 13 63125 1 00 3 1 01000 2211012 05
447 851 080807 0404100807 10060906 090509 081009 10090907 11081009 110909 0606070806
448 45 99 93 1 0205 2 03 06 15 1 123 111 12 43211 1 10 0 6 01000 2310 2 03
449 932 020802 0202080805 11081111 080511 080511 11111111 11080808 111111 0808050811
450 32 46 10 1 06 2 10 2 124 13 12223 1 01 2 3 01000 32 0111 02
451 901 080805 0205021105 11081103 090511 091111 11081111 08091111 111111 0206050905
452 45 99 94 1 0203 3 03 03 05 1 351 111 12 64524 3 02 0 6 00100 22 1011 10
453 902 080811 0205081105 11081111 110511 111111 05081111 11081108 111111 0808020908
454 45 99 94 1 6418 3 01 03 05 1 221 111 12 63225 3 01 0 1 01000 2331011 04
455 981 020805 0505081101 11050502 080508 080805 11080805 09080808 081105 0808080811
456 14 99 9 1 0008 2 05 10 1 222 111 12 64223 1 10 0 2 01100 21 1021 05
457 921 110811 0805081105 11051111 110509 050809 08021111 11080811 111105 0205020205
458 45 99 92 1 0020 1 00 50 10 1 412 13 44122 3 20 0 3 01010 3 10111 05
459 971 020908 0505081105 11080609 080610 101010 06081007 06081008 100910 0407040508
460 45 99 1 1 0312 1 10 20 10 1 235 111 13 63223 3 10 1 1 01010 3110112 08
461 852 080805 0606060906 10070905 080808 070605 11070805 12070808 030508 0805020805
462 13

```

APPENDIX 1.5

Institutions responding to survey

United Kingdom Universities

Name	-- Type of response -- Follow										Numbers in		Total time Hrs /Wk	TP time Wks.	MT time Hrs.	-- Use of --					
	received										department					-- microteaching --					
	UPC No.	Inf Qu.	Org Qu.	Att Qu.	Let ter	Handouts PG MT Pr	Tel	Vis it	Student Sec Pri	Staff Ac Tc	Gen Org	Sc. Ms.				SS. Ms.	La. Ms.	Ed. Ms.	Mi. Ms.		
Bath		Y	0	0	0	Y N N	Y	Y	117	0	16	4	23/20	12	10	N	4	1	2	0	1
Belfast	01	Y	1	1	0	N N N	N	N	101	0	19	2	13/15	13	12 ¹	Y ¹	3	0	0	0	0
Birmingham	02	Y	5	4	1	N N Y	Y	Y	163	0	18	-	-/-		8wks	N	2	3	2	0	0
Bristol	03	N	1	2	1	Y N Y	Y	Y	134	0			22/18	12	-	N	1	0	0	0	0
Brunel		N	0	0	0	N N N	N	Y	15	0			-/-	-	0	N	0	0	0	0	0
Cambridge	04	Y	7	7	0	Y N N	Y	Y	192	0	20	5	35/16	14	-	N	2	2	1	0	1
Durham	05	N	4	4	1	Y N Y	Y	Y	- 156-	40	3		25/15	12	-	N	1	2	0	0	1
East Anglia	06	N	3	4	1	N N Y	Y	Y	- 125-	40	-		-/-	-	-	N	2	0	0	0	1
Edinburgh		Y	0	0	0	No PGCE course offered, only in colleges.															
Exeter	07	Y	0	1	1	Y N N	N	N	158	20	60	-	20/20	12	-	N	0	1	0	0	1
Glasgow		Y	0	0	0	Not involved in teacher training.															
Heriot Watt		N	0	0	1	No Department of Education.															
Hull	08	N	1	1	2	N N N	Y	Y	- 112-						-	N	0	0	0	1	0
Keele	09	N	1	1	2	N N N	Y	N	66	0					-	N	1	1	0	0	0
Leeds	10	N	4	4	2	Y N N	Y	Y	- 277-	46	4		15/15	12	-	N	1	2	0	0	1
Leicester		Y	0	0	5	N N N	Y	Y	186	48	34	5	-/-		-	N	0	0	0	0	0
Liverpool	11	Y	3	4	2	Y N N	Y	N	103	25	23	1	-/-	12	-	N	0	2	0	0	1
Loughboro	12	N	4	5	0	N 1 N	Y	Y	- 129-				-/-		-	N	3	0	0	0	1
Manchester	13	Y	2	3	3	N N N	Y	Y	130	30 ²	24	2	27/12		1wk	N	1	0	0	0	1
Newcastle	14	N	1	1	1	N N Y	Y	Y	- 140-	31	-		-/-	12	-	N	0	0	1	0	0
Nottingham	15	Y	6	5	0	N N N	Y	Y	203	0	23	3	24/20	12	?	N	3	1	2	0	0
Oxford	16	Y	3	3	0	N N N	Y	N	150	0	14	1	20/16	12	-	N	1	0	1	0	1
Reading	17	Y	6	6	1	Y N N	Y	Y	116	0	23	3	24/20	12	-	N	2	2	1	0	3
Sheffield	18	Y	1	2	2	N N N	Y	N	156	0					-	N	0	0	1	0	0
Southampton	19	Y	3	1	1	N N N	Y	Y	110	0	18	3	24/20	12	20	N	1	1	1	0	0
Sussex	20	N	1	1	1	Y N Y	Y	Y	- 97-				2/5x30 ³ 3/5x30	-	-	N	0	0	0	1	0
Aberystwyth	21	N	2	2	0	N N N	N	Y	- 159-						-	N	2	0	0	0	0
Bangor	22	Y	4	5	1	N N N	N	N	130	30	27	2	20/18	12	-	N	0	2	1	0	0
Cardiff	23	Y	4	4	1	N N N	N	N	130	30	18	4	22/		5wks	N	1	1	1	1	0
Swansea	24	Y	1	2	0	N N N	Y	N	133	12	18	1	/16	14	-	N	0	0	0	0	1
Warwick	25	Y	1	2	1	N N Y	Y	Y	83	20	-	-	-/-	13	-	N	0	0	0	0	1
York	26	N	1	0	1	N N N	Y	Y	- 70-				-/-		-	N	0	0	1	0	0
London IoE	27	Y	1	1	1	N N N	Y	N	430	47			16/20	12	-	N	0	2	2	0	2
" Goldsmiths	28	Y	1	2	2	Y N N	Y	N	- 235-		27	1	18/20	12	-	N	0	0	0	0	1
" King's	29	Y	3	2	8	N N N	N	N	101	0	14	3	25/22	12	-	N	3	3	3	0	2
" Chelsea	30	Y	2	2	1	N N N	N	N	100	0	23	5	30/23	12	2wks	N	5	0	0	0	0

¹ Except for main methods Physics, Chemistry, Biology students for whom MT is subsumed within specific methods course.

² Further Education in PGCE also.

³ School-based PGCE course.

APPENDIX 1.5 continued

Institutions responding to survey

United Kingdom Polytechnics

Name	-- Type of response -- Follow-up										Numbers in department	Total time (hrs)	TP time (hrs)	HT time (hrs)	-- Use of -- microteaching --						
	received														Gen. Org.	Sci. Ms.	SS. Ms.	La. Ms.	Ed. Ms.	Hi. Ms.	
	UFC No.	Inf. Gu.	Org. Qs.	Att. Qs.	Let. for	Handouts	Ref. M	Vis. M	Tel	Vis											Student
Birmingham	45	N	1	2	0	0	N	Y	Y	-	95+	-	14	-	N	0	0	0	1	0	
Brighton	43	N	1	1	0	0	Y	Y	Y	-	155+	13/22	13	-	N	0	0	1	0	0	
Bristol	24	Y	1	1	0	0	Y	Y	Y	10-20	40	0	-	-	N	0	0	0	1	0	
Kingston	25	Y	1	0	1	0	Y	Y	Y	30-35	25	17/18	15	64h	Y	0	0	0	1	0	
Leicester	26	Y	1	1	0	0	Y	Y	Y	50-60	17	30/30	15	2wk	Y	0	0	0	1	0	
Liverpool	27	Y	2	1	0	0	Y	Y	Y	50-60	5	14/51/25	0/15/35	2x10	Y ¹	1	0	0	0	1	
Manchester	38	Y	11	10	1	0	Y	Y	Y	-	231+	45/10	15	-	N	2	2	2	0	2	
Middlesbrough	39	Y	0	0	0	0	Y	Y	Y	20-30	5	16/20	10	0	N	0	0	0	0	0	
Newcastle	40	N	2	1	0	0	Y	Y	Y	60+	-	-	-	-	Y	1	0	0	0	1	
N. Staffs		N	0	0	0	0	0	0	0	1500 course closed by DCS. Last intake finishing July 1983.											
Oxford	Y	0	0	0	0	0	Y	Y	Y	-	-	-	12	-	N	0	0	0	0	0	
Portsmouth	41	Y	1	1	0	0	Y	Y	Y	1-15	17	17	10	0	Y ²	0	0	1	1	0	
Sheffield	42	N	0	1	0	0	Y	Y	Y	100+	16/15	15	-	-	N	0	0	0	0	0	
Trent	44	Y	1	0	0	0	Y	Y	Y	50-60	-	-	-	-	N	1	1	0	1	1	
Ulster	N	0	0	0	0	0	0	0	0	1000s prefer teacher training courses											
Wolverhampton	46	Y	0	0	0	0	Y	Y	Y	50-70	20	-	15/20	10	-	Y	1	0	0	0	0

¹ Two separate modules, Social Science and Art & Design.² Organised by resource centre on demand from students.³ Not primary, but FE.

APPENDIX 1.5 continued

Institutions responding to survey

United Kingdom Colleges

Name	UPC No.	-- Type of response -- Follow-up										Numbers in department				Total time Hrs /Wk	TP Wks.	MT time Hrs.	-- Use of -- microteaching --					
		Inf Qu.	Org Qu.	Att Qu.	Let ter	Handouts PG MT Pr	Tel	Vis	Student Sec Pri Ac Tc	Staff	Hrs	Wks.	Hrs.	Gen Org	Sc. Ms.				SS. Ms.	La. Ms.	Ed. Ms.	Mi. Ms.		
Avery Hill	50	N	3	4	0	N	N	N	Y	Y	-	80-			-/-	18 ⁴	-	N	0	1	1	0	1	
Bath CHE	51	Y	1	2	0	N	N	Y	Y	Y	40	20	26	2	20/20	14	2wk	N	1	1	1	0	2	
Bedford	52	Y	1	1	0	N	N	N	Y	N	30	0	12	-	17/22	14	2x16	Y	0	0	0	1	0	
Brad. & Ilk.	53	Y	0	1	0	N	N	N	Y	Y	0	50	14	1	-/-		-	N	0	0	0	0	0	
Bretton Hall	54	Y	1	1	1	N	N	N	Y	Y	70	20	26	-	24/20	12	-	N	0	0	0	0	1	
Bulmershe	55	Y	1	1	0	Y	Y	Y	Y	Y	30	0	18	-	22/22	12	8wk	Y	0	0	1	0	0	
Christ Ch.	76	N	0	0	3	N	N	N	N	N	-	67-			-/-		-	N	0	0	0	0	0	
Chester		Y	0	0	0	N	N	N	Y	N	20	0	16	-	14/19	12	2x4	Y	0	0	1	0	0	
Craigie	79	Y	0	0	0	N	N	N	N	N	0	12	12	-	22/20	12	0	N	0	0	0	0	0	
Crewe & Ans.	56	Y	1	4	0	N	N	N	Y	Y	50	25	29	5	18/22	13	15wk	Y	0	0	0	1	0	
Dorset IHE		N	0	0	1	N	Y	N	P/T Cert. Ed. FE only.															
Dundee CE	57	Y	1	1	0	N	N	N	N	N	45	10			30/19	12	2wk	N	0	0	0	1	0	
Dunfermline	58	Y	1	1	0	N	N	N	N	N	15	0	6	-	4/30 ¹		-	Y	0	0	0	0	1	
Edge Hill	59	Y	1	1	0	N	N	N	Y	Y	47	25			-/-		-	N	0	1	0	0	0	
Homerton	60	Y	1	2	0	N	N	N	Y	Y	62	65	43	12	25/15		5wk	Y	3	0	0	0	0	
Humberside	62	Y	5	5	0	Y	Y	N	Y	Y	30	20	33	5	14/16	13	5wk	Y	0	1	0	2	0	
Jordanhill	78	Y	0	0	0	N	N	N	N	N	360	22	99	-	-/-		-	N	0	1	1	0	0	
King Alfred	73	Y	0	0	0	Y	N	Y	Y	Y	27	15	9	1	16/23	12	-	Y	0	0	0	0	0	
La Sainte	61	Y	1	1	0	Y	Y	N	Y	Y	0	40	11	2	-/19	13	5wk	Y	0	0	0	1	0	
Liverpool	63	N	2	2	2	N	N	N	Y	N	-	130-			-/-		-	N	0	1	0	0	0	
Ripon&York	64	N	2	2	0	Y	N	N	Y	N	-	70-			-/-	13	-	N	0	0	0	0	0 ²	
Roehampton ³	65	N	4	3	1	Y	N	Y	Y	Y	-	222-			-/-	10+	-	N	1	0	0	2	0	
St.Martin's	66	N	2	3	1	N	N	N	Y	Y	-	102-			-/-		-	N	0	0	1	0	1	
St.Mary's ⁴	67	N	1	2	0	N	N	N	Y	Y	-	60-			-/-		-	N	1	0	0	0	0	
St.Mary's ⁵	68	Y	2	2	0	N	N	N	N	N	16	0	6	1	-/-		-	N	0	1	0	0	0	
Cheltenham	69	Y	5	6	1	N	N	N	Y	Y	37	15	30	4	25/20	13	4d/s	Y	1	0	1	1	1	
S.Glamorgan	70	Y	2	3	0	N	N	N	Y	Y	35	45	35	3	24/22	12	13	Y ⁶	1	0	0	1	0	
Trinity&All	71	N	2	2	0	N	N	N	Y	Y	65	0			-/-		-	N	0	1	1	0	0	
W.Midlands	72	Y	1	1	1	N	N	N	Y	Y	40	20	25	-	14/16	15	-	N	1	0	0	0	0	
W.Sussex	77	Y	0	0	0	N	N	N	N	N	20	25	15	-	16/20	15	-	Y	0	0	0	0	0	
Westminster		N	0	0	0	N	N	N	Y	Y	-	55-			-/-		-	N	0	0	0	0	0	
W.London IHE	74	N	0	0	0	N	N	Y	Y	Y	-	102-			-/-	12	-	N	0	0	0	0	0	
Worcester	75	N	0	0	0	N	N	N	Y	Y	50	0			-/-		-	N	0	0	0	0	0	
Guildhall S.		N	0	0	1	Not relevant to this institution.																		
Bell C.ofT.		N	0	0	1	Not a teacher training college.																		
Galashiels		N	0	0	1	No teacher-training courses operate.																		

¹ P/T Physical Education only.² Subject area not specified.³ Roehampton Institute includes: Froebel Inst., Digby Stuart, Southlands & Whitelands Colleges.⁴ Strawberry Hill, London.⁵ Fenham, Newcastle.⁶ Primary only, secondary under subject method course.

APPENDIX 1.5 continued

Institutions responding to survey

South African Universities

Name	-- Type of response -- Follow received --up										Numbers in department				Total time Hrs /Wk	TP time Wks. /Wk.	MT time Hrs.	-- Use of -- -- -- -- -- microteaching --					
	UPC	Inf	Org	Att	Let	Handouts	Tel	Vis	Student	Staff	Sec	Pri	Ac	Tc				Gen	Sc.	SS.	La.	Ed.	Mi.
	No.	Qu.	Qu.	Qu.	ter	P6	MT	Pr	it	Sec	Pri	Ac	Tc	Org				Ms.	Ms.	Ms.	Ms.	Ms.	
Capetown	82	N	0	1	1	N	N	N	Y	N					-/-	-	-/-	Y	0	0	0	1	0
Durban-W'vl	85	Y	1	2	0	Y	Y	Y	Y	Y	81	39	40	4	18/25	6	12/-	Y	0	0	0	1	0
Fort Hare	99	Y	4	4	1	Y	N	N	Y	N	89	0	12	2	25/21	7	2/21	N	0	1	3	0	0
Natal (Dbn)	83	N	2	2	0	N	N	N	Y	Y	120	0	30 ¹	3	23/21	9	3/-	Y	0	0	0	2	0
Natal (Pmb)	Author's base - not used.										105	0	30 ¹	3	23/21	9	5/4	Y	0	0	0	1	0
O.F.S.	91	Y	5	5	1	N	N	N	Y	Y	120	0	30	6	21/27	6	1/18	Y	0	0	0	4	0
Port Eliza.	89	Y	2	2	1	N	N	N	Y	N	45	20	12	0	-/30	6	2/30	Y	0	0	0	2	0
Potsch.	94	N	4	4	1	N	Y	N	Y	Y	180	20	25	-	25/26	7	15/6	Y	0	0	0	1	0
Pretoria	93	N	2	2	1	N	N	N	Y	Y	175	25	15	0	30/35	9	3/6	Y	0	0	0	1	0
RAU	90	N	2	2	1	N	N	N	Y	Y	100	0	10	1	3/32	6	5/32	Y	1	0	0	1	0
Rhodes	84	Y	2	2	0	Y	Y	N	Y	N	56	4	20	1	23/21	8	?	N	0	0	1	0	1
Stellenbosch	92	Y	1	1	0	N	N	N	Y	N	200	0	41	5	15/28	4	7/28	N	0	0	0	1	1
Transkei	98	N	1	1	1	N	N	N	Y	N	120	0	-	-	-/-	-	-/-	Y	1	0	0	0	0
UNISA	87	N	5	5	0	N	N	N	Y	Y	Two year p/t only					Y	0	0	2	3	0		
Univ of N.	97	N	1	1	0	N	N	N	Y	N	99	0	20	2	20/25	4	1/25	Y	0	0	0	0	0
Western Cape	88	Y	3	3	0	N	Y	N	Y	N	310	0	40	3 ²	-/-	-	14/11	Y	0	1	0	1	1
Wits	80	Y	12	11	1	Y	Y	N	Y	Y	121	0	45	4	22/22	9	-/4	Y	2	0	8	2	0
Zululand	96	Y	4	4	0	N	N	N	Y	N	40	0	20	1	21/28	7	1/2	Y	1	1	0	1	1

¹ Includes approximately 20 part-time subject method tutors.² Students used as technicians.

SAMPLING AREAS FOR UNIVERSITIES, POLYTECHNICS AND COLLEGES IN THE UNITED KINGDOM

AREA A
 $U = 8$
 $P = 1$
 $C = \frac{11}{20}$

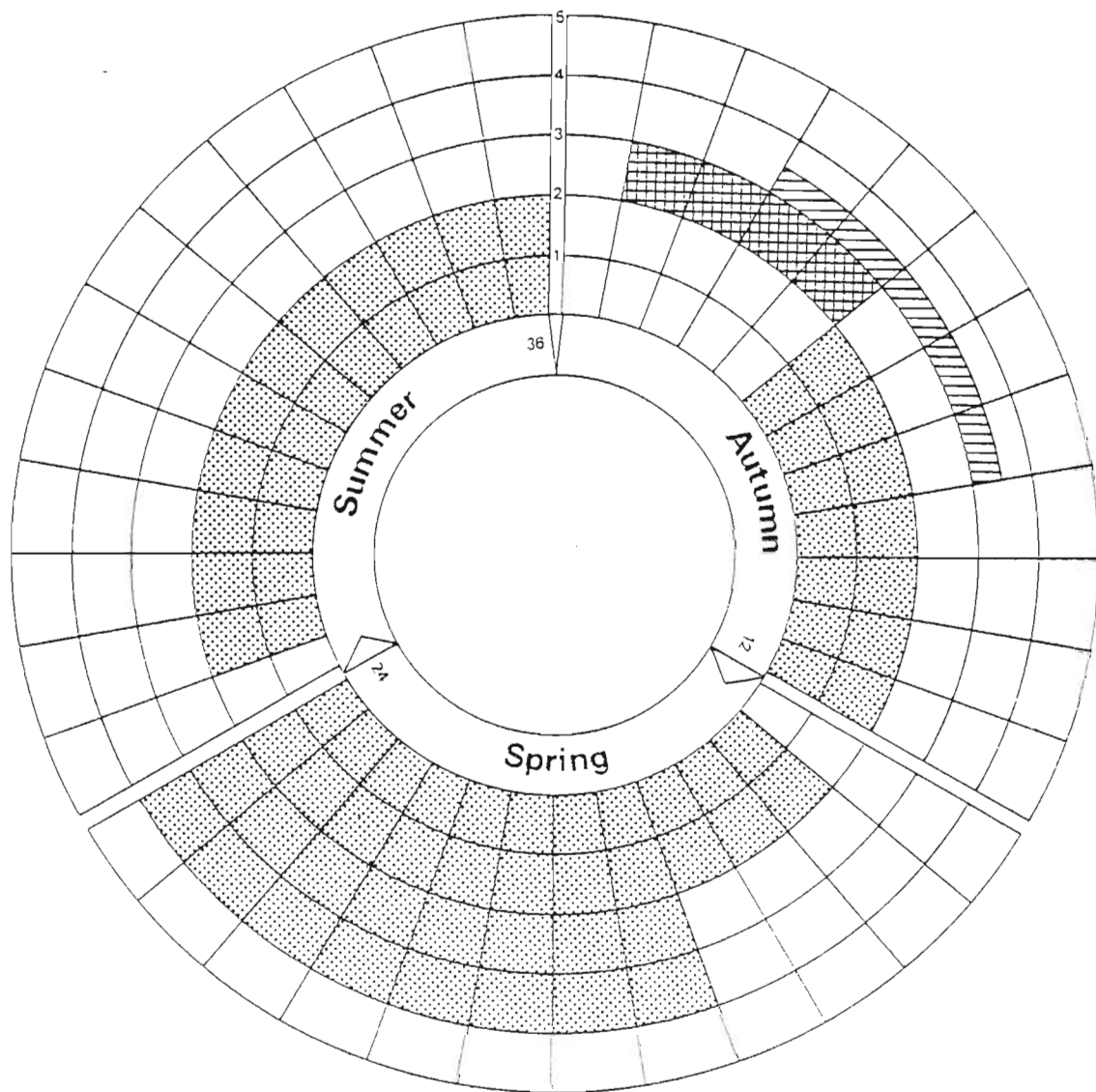
AREA B
 $U = 6$
 $P = 3$
 $C = \frac{12}{21}$

AREA C
 $U = 9$
 $P = 6$
 $C = \frac{6}{21}$

AREA D
 $U = 7$
 $P = 2$
 $C = \frac{12}{21}$

AREA E
 $U = 3$
 $P = 5$
 $C = \frac{13}{21}$

Appendix I.7

DISTRIBUTION OF SCHOOL BASED STUDIES ON THE
PGCE (ART EDUCATION) COURSE

Primary school: tutorial group observation

4

Secondary school: tutorial group teaching

2.5

Secondary school: sub-group teaching
emphasis on individual teaching
in the summer term

52

20

78.5 days

APPENDIX 2

PAGE:

2.1 Comments on contribution of microteaching:

United Kingdom Universities	255
United Kingdom Polytechnics	257
United Kingdom Colleges	258
South African Universities.	260

2.2 Comments on limitations and problems of microteaching:

United Kingdom Universities	261
United Kingdom Polytechnics	262
United Kingdom Colleges	262
South African Universities.	263

2.3 Comments on changes in approach to microteaching:

United Kingdom Universities	265
United Kingdom Polytechnics	265
United Kingdom Colleges	266
South African Universities.	267

2.4 Comments on cutbacks and/or developments in microteaching:

United Kingdom Universities	268
United Kingdom Polytechnics	276
United Kingdom Colleges	278
South African Universities.	283

2.5 Comments on the Attitude Questionnaire. 287

APPENDIX 2.4

Comments from Information QuestionnairesContribution that microteaching can make to the one-year postgraduate courseUnited Kingdom: University responses

We find it a useful technique (one of many) to assist students in coming to terms with their work as teachers.

In particular it is a valuable means of exploring the skills needed and sensitivities required in interaction of student and teacher. (U/Bath)

Pre-teaching practice simulation in a safe environment.

Student analyses more clearly own and others developing teaching styles.

An important diagnostic function for methods tutors. (U/01)

Varies. All of the above staff are willing to be contacted if you wish to visit the University. (U/02)

We do televise students teaching small groups of other students but this is not accompanied by the usual microteaching programme.

No specific skills are identified and we only use a teach/observe sequence. (U/04)

It is difficult to complete the questionnaire as it stands as individual tutors arrange microteaching experience for their students and a collective view of the amount which takes place, etc. is impossible to give. (U/05)

Teacher training is done in the colleges of education in Scotland with the exception of Stirling. (U/Edinburgh)

Alerts students to variety of styles in teaching.

Minute analysis of proxemics, ethology, language tones etc. very enlightening. (U/07a)

Awareness of theory and practice of CAL in humanities teaching (use of micro-prolog). (U/07b)

Note: Diploma in Education is academic. Students coming on this course either already hold a teacher's certificate or take the Diploma course concurrently with teacher training at either of our local teacher training colleges. The Department of Education, indeed the University, is not involved in teacher training. (U/Glasgow)

I regret we must make a nil return to your questionnaire on microteaching....as we do not have a department (of education). (U/Heriot Watt)

I have had a reply from only three colleagues saying that they do still make limited use of microteaching, though I know of one or two others who have had to give up this technique as it is so time consuming. (U/08)

I circulated it to those who indicated they used microteaching but the letter never re-emerged. At the December meeting of the department no one admitted to holding it! Your second letter was given to the tutor-in-charge PGCE, but when asked she could not find it. (U/09)

It is clear from our discussions within the department that it is not likely to play a major part in the proposed changes in our course structure. The department is very committed to an IT-INSET approach whereby students will spend up to half the time on the course in schools. Certainly we will use video to record some of this time but our commitment is to a course where classroom issues are seen as essentially problematic and where the teacher, the method tutor and the student all engage in curriculum enquiry during the actual process of teaching. Thus we are committed to the teacher as researcher model for the basis of our postgraduate training. (U/Leicester)

A large number of people are involved in small ways. Impossible to say, it varies from period

to period and group to group.

My impression is that use of microteaching has declined since the early seventies, when several of us were experimenting with it. Some of the reasons for this may be practical: problems of using children, clashes in booking the videotape, reduction in technical support, etc. Other reasons relate more to the "ideological" underpinning of MT, with its rather simplistic (in some formulations at least) view of "teaching skills". This distrust in simple skills may in turn be linked to the practical difficulty in a course as short as the PGCE of allowing enough time to practice different aspects of skills in a considered, graduated approach towards the complexity of teaching practice. (U/11)

Teaching practice preparation and follow-up. (U/13)

Students first awareness of self as a teacher.

Means of developing pedagogic skills.

A post-experience diagnostic instrument. (U/15)

Responses suggest one-off use rather than courses in microteaching.

A variety of responses. Little systematic 'on-going' use of microteaching.

Infrequently used with pupils - a matter for regret - a number of staff would like to use it more.

Mention frequently made of students teaching their fellows and learning how they appear and sound and, when CCTV is used, to see their performance and analyse it. (U/17)

Unfortunately I feel totally unable to answer the questionnaire simply because I do not use microteaching, and (perhaps to my debit) never have done. (U/18)

Mainly it provides a opportunity for students to see and hear themselves as others do, and to identify any difficulties in presentation, explanation etc. and any voice or physical mannerisms. (U/19)

The PGCE course is a school based course in which students spend three days per week in the same school during the Autumn and Spring terms together with a period of continuous practice in the same school. It is therefore structured very differently from a course constructed of different "units" in a traditional way. Within the university component (two days per week) students engage in seminar programmes with personal and curriculum tutors. (U/20)

Minimal in time and extent, but quite powerful in effect.

Dramatically increases self-awareness, and promotes new style of self-assessment. (U/22a)

I see it largely as a 'breaking the ice' exercise for I only expect students to 'teach' the first 10 minutes of a lesson and this is time consuming with a large group and time for playback.

It gives students the opportunities to see each other teach and hopefully learn from the 'mistakes' of others.

I think it also helps to create a corporate spirit within the group. (U/22b)

Very useful in developing the skills involved in traditional, expositional, didactic teaching.

Students have an opportunity (possibly their only opportunity ever) to actually see themselves teach and to observe (and hopefully eliminate) any idiosyncrasies etc.

Discussions of individual "performances" can yield models of both "good" and "bad" practice. (U/22c)

Gives confidence in speaking to a class.

Practical experience in developing teaching skills.

Experience in meaningful preparation.

Allows assessment by fellow students in follow-up sessions. (U/23)

I am not personally involved in microteaching but I consider it has a valuable contribution to make in teacher training, particularly in aiding self-evaluation in a calm context. (U/24)

Not a component of any course. (U/25)

I return your partially completed questionnaire. I am sorry about the delay, but we are so large and diverse it is hard to obtain a general comment on anything! (U/27)

I am afraid it is not possible for me to complete your questionnaire, for a variety of departmental reasons, which I will not bore you with. My main problem is that you do not indicate what you mean by microteaching. Thus, in some senses of the term, all twelve Education Tutors here, and all 15 Method Tutors probably do some of it. On the other hand, in another version, maybe none do. (U/28)

Two full-day sessions for Classics students during the Lent term concentrating on the skills of story-telling (Classical studies work). Pattern - prepared stories read and told by each student - performance assessed by peers and observation group - feedback to student from two sources + self-assessment later. (U/29a)

Two sessions with students carrying out small sections of a teaching programme using the other students as learners. Feed-back and comment a) from the performer b) from others and tutor. There are defined parameters for observation which are developed and refined as the course progresses and these serve as an essential basis for development of the skill of self-analysis. (U/29b)

One full-day during Lent term. Prepared lesson/lecturette (about 10 min) given by each student to all others, followed by assessment. Viewing sessions later for self-assessment. (U/29c)

One full-day - prepared lesson-ette 10-15 min or less + comment by others. Normally lab based + video, 1982-83 theme - Petrochemicals. Viewing session - two afternoons - teacher & class (general), teacher & class (chemistry). Response - discussion & sometimes questionnaires, but not always, depends on group. (U/29d)

Autumn term (1st fortnight i.e. pre-TP), two sessions devoted to MT. All students (& I) do 10 mins presentation, followed by assessment (10 min). One session (of the two) is video-recorded & playback serves for self (& other) assessment. Spring or Summer term (depending on availability of video) same exercise for all on video. Compare with earlier (video) performance. (U/29e)

My idea of microteaching is teaching small groups of children and I have yet to find an opportunity of doing this in schools. As I see it, the main advantage of this kind of thing in R.E. (which apart from examinations is usually taught to full classes) is for the teacher/student to be able to observe and assess responses and difficulties without the hassle of 30+ children all at once. We present prepared work to each other in the first fortnight before T.F.; sometimes on Friday afternoons (according to the needs of the group) and always in the Lent term at the end of "workshop" days. But I do not count this as "microteaching". (U/29f)

I totally disagree with the opening statement, it is a wild generalization and not a true reflection of research findings in microteaching. Both in Geography Methods and Skill in Games students are given an opportunity to "teach" each other but this is not real microteaching in the sense that it involves follow-up analysis (vide Flanders). It seems to build up confidence and give a little insight into imparting knowledge in an hierarchical, logical and clear sequence etc., but it is teaching in an artificial environment. With small group teaching of children I could see some advantages of a general psychological nature but not highly specific to the normal classroom teaching process; that is if anything could be described as a normal process because so many different kinds of activity are practised in different subjects at different stages of learning and development. (U/29g)

This does not really relate to my areas of work in the department. (U/29h)

I am sceptical of the value of microteaching - at least in my own subject. However in the Spring term, we do, once a week, view and analyse videotapes of a variety of teachers (and two student teachers) doing a variety of different English lessons. (U/29i)

It enables the students to become more aware of their performance in presenting scientific apparatus. (U/30)

United Kingdom: Polytechnic responses

No separate component is offered on any course, neither is any formal or systematic microteaching done, but individual staff, particularly in secondary subject methods courses, do use an element of it from time to time.

Perhaps a limited contribution in college, with peer teaching exercises. (P/34)

We do not use microteaching with groups of children - only for peer teaching. It helps in the

analysis of verbal and non-verbal skills used in presentation. (P/35)

Provides a) controlled means of focussing on specific teaching skills, b) enables identification and refinement of issues to be extended in school based studies. (P/36)

We use this in the induction course as a means of feedback to students about their performance and it forms part of the course 'The Teacher as Communicator'. (P/37a)

It involves students in small scale teaching experiments based on a) Art Concepts and b) specific teaching schedules. (P/37b)

Microteaching is used on a number of PGCE courses e.g. Social Studies, History and Languages, although other subject areas have used it from time to time.

In terms of the importance allocated/available for microteaching, I think it would be fair to say that this is limited more by constraints of time than anything else. (P/38)

Notwithstanding our "nil" answer above, some colleagues and I have been busy discussing the possible advantages of microteaching for a course such as ours. So far it has not really gone beyond talk, except that we have discussed ways and means whereby to combine microteaching with student practice at operating simple video systems - and we have now run short courses (one-day) for all students on how to use the portapak system. We may yet this year set up situations where they use such systems in combination with very crude microteaching activity. (P/39)

Microtraining facilities are available to all students and are used by academic staff when considered appropriate. No formal course. However students learn techniques (using equipment etc.) on an informal basis. Video available. (P/42)

A great deal, if student comments are any evidence. (P/45)

United Kingdom: College responses

The above course gives opportunity for feedback to students on their style of delivery etc. (C/51)

Teaching studies looks at theory through the "eyes" of the teacher in the classroom. Microteaching follows this up by focussing on the particular skills etc. under debate. (C/52)

As new course tutor hard to give realistic answers. (C/53)

In a compressed course it gives experience of teaching in a concentrated form with instant feedback. (C/54)

I believe that these sections need to be discussed rather than written about so briefly. My colleagues and I will be happy to talk about the use of microteaching if you can fit in a visit to us. (C/55)

Highly thought of by students as the most "realistic" component of I.T. other than the method courses. (C/56)

Self-awareness. Heightens awareness and understanding of practical skills of teaching. (C/57)

In our special circumstances (P.E.) the technique proved most useful in terms of allowing a more indepth analysis of a) a universal model for analysing teaching systematically, b) the students' own teaching (in such a rigorous manner as they hadn't encountered previously). (C/58)

A useful simulation exercise as part of a carefully planned school-based course. It can give students an opportunity for experiencing teaching in a supportive environment and getting immediate feedback. (C/59)

Focusses on key basic components of teaching, encouraging an early analytic approach to a study

of teaching.

It also if appropriately managed enables the tutor to build up the confidence of students. (C/60)

It has always been apart of our Basic Ed. Tech. course, which in turn is basic to all our courses comprising PG training. We don't see it as a separate item. (C/61)

As part of total school involvement.

Gives opportunity to try particular aspects of teaching e.g. questioning. (C/62)

Microteaching occurs in some course as part of the method workshops which take place once a week. It is impossible to be more specific than this. It is very dependant on the teaching style of the tutor and the size of the group. As this is our last year the total group is very small and some method groups would not be large enough to sustain microteaching. (C/68)

Confidence and experience of teaching (Mod.L,Ed,Rel.St).

Experience of published course materials (Mod.L).

Avoidance of main traps in teaching techniques (Mod.L,Ed).

Questioning techniques (Mod.L).

How to start teaching a point (Mod.L,Ed,Rel.St).

Self and group analysis (Ed,Rel.St).

Use of teaching resources (Mod.L,Ed).

Presentation of themes (Rel,St).

Analysis of performance skills in P.E.

To get them to see themselves as others see them.

Considerable (Hist).

Essential (Maths). (C/69)

This course selects the art of "effective questioning" as the skill explored, evaluated and practised via the microteaching. By selecting one major teaching skill (i.e. asking higher-order questions and practising higher-order responses) students can practise this and in consequence become sensitive to its function in the classroom. (C/70a)

Early initial pupil-student contact.

Small group development of specific teaching skills.

Regular contact with pupils throughout the year.

Students can observe each other at work. (C/70b)

Useful in the early part of the course, before experience in schools. (C/73)

I am relatively new and so far as I know none of my colleagues use microteaching techniques at present. As you will know we are in a period of review and I cannot say at present what use may be made of microteaching in the future. (C/76a)

The PGCE Junior students are in the whole of their course not exposed to microteaching - regretfully. (C/76b)

Awareness for all graduates linked to a simple hands on programme. (C/77)

It is left to individual departments to decide their usage of this teaching/learning strategy. (C/78)

This is a very small college, in terms of students, staff and resources and thus we do not think we could afford to do justice to microteaching. Also, the course would have to be reorganised to make this approach possible. (C/79)

I regret that your questionnaire has no relevance to this institution. (C/Guildhall)

I regret that we cannot assist you as this is not a teacher training college. (C/Bell C. of T.)

We spend very little time on it. Its principal use to us is to give our students the opportunity to team teach (briefly) a small set of children in college as an experience of

teaching and to hear and see themselves and be commented on afterwards. (C/Chester)

South Africa: University responses

At its best a wonderful introductory experience of learning to become a teacher.
Provides cognitive and affective bases on which subsequent theory and practice can build.
(S/80)

We make simple use of our black and white facility.
In the method courses students either teach the rest of the methods group or a small group of pupils and soon thereafter watch a replay of the lesson with comment from the tutor. (S/84)

Exposure in terms of seeing themselves and as an instrument to introduce students to practical teaching.

In this teaching situation they will gain very limited experience in specific teaching skills (e.g. variation & questioning). (S/85)

To develop the students potential register of competence by concentrating NOT on the totality, but on isolated elements (skills).

To develop his repertoire of professional skills in an atmosphere congenial to learning - the SAFE environment, away from the normal classroom life, with a great deal of FEEDBACK. (S/88)

Valuable contribution as it offers the students, over and above their periods of formal practice teaching, extra opportunity to practise teaching. (S/89)

Giving teaching practice - real teaching although structured.
Practice of instructional skills, techniques of teaching; mastery of certain teaching methods etc.
Possibility for experimentation. (S/91)

Preparation for classroom teaching, practical teaching, teaching behaviour modification.
(S/92)

We believe that it is useful in making students conscious of what they are doing and helping method lecturers with some standard faults. (S/96)

Builds confidence.
Offers practise of skills.
Basis for discussion.
Provides for individual creativity. (S/99)

APPENDIX 2.2

Comments from Information QuestionnaireLimitations of microteaching and problems experienced with its useUnited Kingdom: University responses

It is very time consuming in an already cramped course.
 Students are often anxious about such a close relationship.
 Students, whilst sensing its value, do not always see the contribution it makes to class teaching techniques. (U/Bath)

Students may perceive the activity as 'unreal'.
 The organization of 'remedial' post TP micro sessions: difficulties here are a function of other course demands and problems of link-up with local schools in terms of time-tabling. (U/01)

Artificiality especially with cameras.
 Brevity means a certain style ignored (like Hitler's) - takes time to warm up.
 Self consciousness - in teaching one should LOSE oneself in the children - the self watcher needs an extra coolness. (U/07a)

Non procedural language.
 Not yet available. (U/07b)

Group size.
 Lack of equipment and its availability.
 Technical assistance. (U/13)

It is essential to diversify its uses and sustain them but this is constrained by time available.
 The degree of artifice limits its long term value.
 Availability of children. (U/15)

It is time consuming and requires to be 'set-up' each time as we do not have permanent microteaching facilities.
 Sometimes it is done in schools, as well as in the department.
 It is often done under artificial circumstances and generates some tension in the students concerned. (U/19)

Inherently deceptive, since camera is "selective" and recording is misleading.
 Acceptable limitations of our practice: no real learners (pupils) obtainable in general.
 No problems, once you accept the limitations and the very modest intentions of utilisation.
 Services of technician needed to set up efficiently. (U/22a)
 O.K. for traditional expositional teaching but not for other styles, heuristic, interactionary etc.
 Students themselves simulate pupils/learners/recipients. This is not entirely satisfactory, I hope eventually to "borrow" classes from local schools to microteach with.
 Technician/Cameraman: could constitute a major limitation, I am extremely fortunate in this respect. P.G. appreciates my objectives quite clearly and responds accordingly, i.e. technician and tutor have to operate as a team.
 Must not be embarked upon too early in the course. Students must have an opportunity to become acquainted with one another before microteaching together.
 S.W. assents that camera is "selective" in one respect, this is certainly true, but equally the camera can be comprehensively honest. At best the tutor, on his own, tends to be selectively subjective. The camera, on the other hand, reveals all. (U/22b)

Certain artificiality - in respect of age and ability.
 None - students appreciate its value. (U/23)

Obviously, it can only supplement the real thing – actual practice in schools. (U/24)

There is insufficient time to broaden the scope so as to involve schoolchildren and classroom interaction.

Space limitations of timetabling and resources. (U/30)

United Kingdom: Polytechnic responses

Problem of selecting an appropriate occasion, where resources can be organised and time is available for follow-up.

Difficult to structure it to meet needs of students as they arise. (P/34)

Its role in our context is restricted to the first phase of the course.

Students are subjected to considerable anxiety. (P/35)

As simulation it has artificial constraints of time, numbers and age of learners.

Depends on the ability of the teacher to establish that it is a credible and "realistic" experience.

Not aware of any major problems – perhaps a case of ignorance being bliss! (P/36)

It is mainly College based – but if you come to the college you can discuss it in detail with the staff. (P/37a)

Particularly of a resource nature – time and hard ware. (P/37b)

I think it would be fair to say that it is limited more by constraints of time than anything else. Microteaching is time consuming.

There is little time to use the technique to help them improve and refine skills – more to sensitise them to the fact that such skills do exist and can be built up with practice.

(P/38)

The limitations/problems relate to the fact that this course tries to maximise 'real' contact between students and pupils – microteaching would presumably come out of conventional school practice (for which there are DES minimum requirements anyway).

The big problem with any PGCE is fitting in all the things you'd like to – the solution is usually (and perhaps not always rightly) to put in those things for which you have ready expertise and/or experience – untried innovation (on your own terms) does not rate highly in such considerations (regardless of its success for others elsewhere). (P/39)

No problems apart from setting up equipment and availability of technical support. (P/42)

Time, 15 minutes per student = 3 min teach + discussion + 3min reteach. (P/44)

Time consuming, consumes a great deal of staff time for comparatively small groups. (P/45)

United Kingdom: College responses

Not impressed, can't grade bits to measure overall performance.

Time consuming, used more systematically previously. (C/50)

Requires presence of a technician and sophisticated equipment. (C/51)

Inevitable problems of space, time and equipment. (C/52)

With our equipment it can only be done on campus and not in schools. This means transporting children in to an unfamiliar setting, or using peer groups which is not always satisfactory because of the level of work being taught.

Specific to this institution – the timetabling of limited resources and the demand by other courses on the available microteaching space. (C/54)

Difficulty in applying techniques to nursery-infant group. (C/56)

We previously tended to focus on "styles" of teaching more than at present. We have now moved to using microteaching in a more process oriented way - to engage students in the process of evaluation.

Logistics of putting so many students (15!) through the microteaching process and analysis.

The logistical problem was almost unsurmountable - in fact we rarely provided opportunities for teach/reteach. Almost invariably we had to move on after a teach/analysis format. (C/57)

With groups of children the 'camera factor' can be disturbing - I tend to use students.

Finding more time in an already short course. (C/59)

Time consuming and sometimes limited due to logistic and mechanical considerations.

Difficult to give students enough. (C/60)

We need to attach MT to microcomputers for better data input and handling. We have the program etc. ready, experimenting next year.

Just time. We go for Questioning skills - not Set Induction which would be an easier start for the student. Maybe with a 36 week course we start that way. (C/61)

Somewhat artificial.

Limited time.

No major problems. (C/62)

Audience of students not children; therefore a false situation if regarded as direct preparation for secondary (or primary) school. Audience too supportive (Rel.St.Ed).

Time consuming.

Too repetitive if all parts of course use it.

Availability of equipment on site, if videoing.

Organisational problems (Maths) - solved as some tutors will not be using it until next Summer. (C/69)

Isolating just one skill and concentrating upon it with students in I.T.T. can lead them to overstress its importance in relation to other teaching techniques. Students in talking with children can become obsessed with practising this skill and fail to listen to what children are actually saying.

Many students become anxious when confronted with TV cameras/replay of their teaching.

Technical problems of hearing each child's response on the play-back.

Microteaching is BEST used with more confident teachers as a regular In-Service activity.

Using it briefly with students in I.T.T. produces limited benefits. (C/70a)

Somewhat contrived and artificial.

School commitment throughout the year not always forthcoming.

Can only be seen as complementary to the whole class approach of much traditional Sec. School teaching.

Limited access to CCTV facilities because of demand across faculties. (C/70b)

A contrived situation, pupils not as they are in own school base. (C/73)

No apparent limitations apart from the tradition of linking micros with maths, e.g. physical housing of equipment.

Attitudinal change e.g. History & English graduates. (C/77)

It is artificial and can focus on separate skills at the expense of whole teachings (though separate skills can and should be isolated).

Mainly technical ones. (C?Chester)

South Africa: University responses

No substitute for school-based TP.

Not sufficient time to take all steps would like to facilitate transfer.

Tutors who use poor tutoring practices. (S/80)

Artificial if broken up into component skills and practised separately. (S/84)

We are limited by the amount of time available.

Large numbers mean that school children cannot be brought in for the microteaching. Therefore it is done in the context of peer-teaching.

Problems: a) In regard to the allocation of suitable venues.

b) Acceptance of the approach by the staff and helping them in its adequate use.

c) Occasional breakdown in equipment.

d) Too many students to allow for adequate practice, facilities and staff are used for the same purpose with third and fourth year integrated degree students numbering 250+. (S/85)

Teaching might be regarded as segmentation and not as a complex set of skills and relations.

There is no agreement on the essential skills to be included in the course. Teaching to peers is often frowned upon and the practice is then unrealistic.

Inadequate equipment. Inadequate accommodation. Inadequate staff to complete the cycle at one session, viz. teaching skill(s); performance by students; evaluation and feedback by lecturers and peers. (S/88)

Time consuming nature of microteaching. One would like to offer the students more opportunities.

No problems really. (S/89)

Not real classroom situation - unnatural.

Time, students do not get chance for immediate follow-up lesson. (S/91)

Cannot serve as an alternative for prac. teaching. (S/92)

It is expensive of time.

If, as we believe desirable, it is done by lecturers in method subjects it does not come out in a "skills" form because it is hard to get them thinking along those lines: it becomes "phases" of the lesson more commonly.

We are gradually getting all method lecturers to read up on microteaching theory.

We are going in slowly, expecting problems and trying to get coordination between lecturers, which is not easy: we haven't got very far really.

Even with our foolproof system we get some technology hitches. (S/96)

More time is needed to study the content of the matric syllabus.

Student numbers are fast increasing and microteaching does not cater for large groups. (S/99)

APPENDIX 2.3

Comments from Information QuestionnaireChanges over the years in the use and organisation of microteachingUnited Kingdom: University responses

Like most techniques, I imagine, those who value it, use it – those who don't don't. (U/Bath)

Microteaching became an element of the PGCE course 7 years ago as a result of a small-scale research project investigating whether students experiencing microteaching treatment showed superiority (as measured by performance on teaching practice) to a matched group not experiencing such treatment. (U/01)

The students analysed their performance. Now we expect the children to analyse it as well. (U/07a)

Yes – non-existent before 82/? (U/07b)

In reading over the responses from my colleagues I am not certain that sufficient systematic microteaching in terms of what you are seeking from "a more detailed questionnaire directed at the staff involved in microteaching" but I leave it to you to follow it (and a visit) up at a later date. I hope that what appears here is of some use to you in any case. (U/17)

Some of my colleagues have experimented with the technique and have not found that the time, effort, etc. involved were not justified in the light of the apparent advantages gained. It may well be more appropriate in some subjects than others e.g. modern languages. (U/19)

No significant change.

In view of the absence of real learners, no full-blown exploitation (à la G. Brown, for example) is attempted.

We wait until a group of trainee-teachers is sufficiently cohesive to provide more support than threat. (U/22a)

Initially a sceptic....I now devote a little more time to microteaching.

PGCE students, though finding the experience a little disturbing at times, concede its value and usefulness as part of their training. (U/22b)

It has changed over the years in response to curriculum changes, methodological advances and the appearance of new courses. (U/23)

It is not possible to give a general answer to this question.

As you yourself state you need to get your information directly from those actually involved in using microteaching for specific purposes. (U/24)

It has developed from my experiences at Stirling University with Donald McIntyre, Gordon MacLeod et al. I wished to extend it into the classroom situation – to provide actual feedback but on the PGCE course there are severe constraints.

I still believe that "classroom based microteaching" is what is required. (U/30)

United Kingdom: Polytechnic responses

It has become more general among PGCE students in the place of the Professional Theory and Practice course. (P/35)

Initially used as a "general" introduction to issues related to teaching, but has increasingly been structured to focus on specific classroom skills. It is considered appropriate to extend it further but developments are severely constrained by lack of time. (P/36)

It has been developed and included in more courses.

It would be easier if you came and found out the information you require. (P/37)

I think microteaching has something to offer - I would like to see it utilised on this course (for which I am acting course leader - and have been for only this academic year). The main resistance I suspect comes from general staff resistance to new modes of operation (perhaps quite justifiably when none of them has what might be necessary prior experience of using microteaching), coupled perhaps with access (easy access) to necessary equipment. Its perhaps an irony that those courses which could most benefit by such 'compressed learning' are most likely to be those that argue they haven't got the time available to try it. (P/39)

Use now more informal.

I hope this is of some help. Difficult to respond in some areas because there are no precise easily obtainable figures available.

Let me know if I can help further. (P/43)

United Kingdom: College responses

New primary course in preparation - some use envisaged. (C/51)

Year 1 of running a PGCE course. (C/52)

Apologies for an unhelpful reply! The merger of colleges has led to many staff changes that I hesitate to generalise from past experience. (C/53)

A much wider use has been made as staff have become more familiar with its potential. Economics however prevent expansion in terms of space and technical resources. (C/54)

Equipment become contracted for use by all courses.

Changing emphasis from a skills oriented approach to one of stressing involvement of students in evaluative process.

Greater emphasis made this year on quality of supportive teaching materials.

As a result of the logistical problems, we have tended in our pre-service course to stop using AV equipment for recording teaching episodes during class time. Students still go through the teach/analysis situation and are then required to film their teaching/ analyse privately/ analyse with tutor/ (possibly reteach) as part of their assessment.

Unfortunately I'm not sure whether our experiences of microteaching in PGCE courses are of interest to you. Nevertheless I wish you all the best in your efforts. (C/58)

Similar pattern used for last 5-7 years. (C/60)

Growth mainly since 1969, have produced our own training tapes. We've been in Ed. Tech. a long time. (C/61)

More integrated than before. (C/62)

This is the last intake of students for the PGCE course and a visit would not be very helpful. (C/68)

In the early days we got pupils in from schools for students to teach. This may still go on in the B.Ed. course, but for PG's it is impractical now (if it ever happened here) because of time/energy limitations if nothing else.

This questionnaire is very difficult to complete (like most!) because the questions don't fit our situation. (C/69)

We have always concentrated on the skill of "effective questioning" (using a modified version of Pennott's Lancaster self-learning materials for teachers). We use Junior School children - each student 'teaching' 5 pupils one week and then practising the skill again with another group of 5 children the following week.

As we evaluate its place within I.T.T. we may - a) move towards the story-telling skill rather than effective questioning - or - b) give up this 'tool' entirely. Limited use of the

approach with students in I.T.T. has seemed to produce limited results. (C/70)

Used less than before - because time consuming, some students feel threatened, lack of interest by staff concerned with course. (C/73)

Obviously related to effective teaching skills and the IT-INSET model.
Much improved analysis of individual tensions that make it -? - for some able student teachers e.g. idiosyncratic approach. (C/77)

No change with regard to formal arrangements on College scale - left to departments to decide on degree of usage. (C/78)

Very little, if at all. (C/Chester)

South Africa: University responses

Since 1981, time allocation per student (lectures etc.) increased from 5 to 11 hours (MT pracs. from 2 to 5 hours), from 2 to 3 venues, from 3 to 5 skills, from 1 to 1,25 hour practicals. Placing skills in whole lesson context (1 hour) with help of film material. We are integrating MT more strongly into a framework of whole-class teaching and the whole introductory three-week programme, as time passes. It has not been integrated with the school experience that follows with the desirable degree of explicitness (a major weakness I believe). (S/80)

In our dept. very little.

We are not committed to extensive use of microteaching. With our method lecturers actually in the dept. we get into the schools as much as possible and place more emphasis on subject method than anything else. (S/84)

Fairly constant but for a limited period of time (using it past 3 years) with small changes to take into account student and staff criticisms.
The full use of microteaching involves complex organisation and facilities when large numbers are involved. (S/85)

Implemented in 1984. This programme has been revised for 1985. With assistance from, and visit by Mr. Keri Davies in May 1984, the programme for 1985 has already been approved by the Faculty of Education. Three didactic lecturers will have 7 sessions of 125 minutes per week (9 weeks) to complete desired cycle in each session. "Closure and Transfer to Classroom" will be full lessons to pupils at schools, evaluated by all lecturers in Department (2 weeks). (S/88)

We have reached the stage where we have extended the micro situation, where the students are requested to consolidate the practised skills in one final lesson of approximately 20 minutes at the end of the course. (S/89)

Smaller groups, more regular use, special facilities in new building. Doing microteaching with second, third and fourth year of integrated teacher training. (S/91)

Organisation as such has not changed much. (S/92)

We began last year.

We have a diploma year for 180 other students so the 40 UED's are only a small part of our total concern.

We have me as official (unpaid) "coordinator" to try to streamline the diploma courses and develop video feedback in training teachers. (S/96)

After the initial 3 years of introduction to this course when all students and all lecturers all had to attend the microteaching general lectures once a week, now all lecturers proceed independently and discuss their progress at a fortnightly meeting. (S/99)

APPENDIX 2.4

Comments from Organisation QuestionnaireDevelopments or cutbacks in approach to microteachingUnited Kingdom: University responses(U/011) Biology:

"Microteaching for all biologists, pre school practice, is organised, administered/ supervised by self. After first period of school practice if further MT is deemed useful to the student (i.e. remedial) then it is centrally organised in the Department, using mixed method groups and part-time tutors - before the second extended period of school practice."

(U/021) Religious Education:

"A new but worthwhile venture for us. We hope to increase the time given to MT, including recording in schools on Thursday mornings throughout Autumn term."

(U/022) History:

"Only some questions seem to apply. We call this our 'teaching project', always use inner-ring schools with ethnically mixed groups and encourage students to teamteach and microteach - we do not insist on this. It is a chance for them to experiment in teaching skills."

(U/023) Social Studies:

"Pupil feedback is advocated rather than microteaching as such using questionnaires. We used to microteach but we lost our CCTV facilities and technician in the cutbacks. Some facilities are now being restored to us."

(U/024) Physics/Chemistry:

No comment.

(U/025) Biology:

"MT is minimal because overall course time is too short."

(U/026) German:

"We use microteaching in a very specialist and individual sense. It is too complex to go into here but I would be only too pleased to discuss in detail the format of our work. We make very little use of technical equipment as the facilities we have are now limited and also because within the context of what we do, they serve little purpose. I have not filled in the Attitude Questionnaire as it is not always appropriate to what we do."

(U/027) Mathematics:

"I have read your questionnaire and feel unable to make a considered response. I have no experience of microteaching in any shape or form and have not seriously considered its methods or objectives. In any case my appointment is for one year only so that I have tended to adopt the practices that were already in use. Microteaching was not one of them."

(U/031) Biology:

"If our own old reel to reel B&W recorder is out of action, which it has been in the past, there is no way we can do microteaching. Pressure on AVA dept. equipment is too much on too little hardware. AV equipment is of low priority in this university and the dept. has just gone up in flames."

(U/032) Geography:

"I work closely with my students but can't honestly use the term microteaching."

(U/033) Geography:

"Microteaching has some value but the capital and resource implications are out of reach in times of financial cuts and falling rolls. Used enthusiastically it reinforces the image of the teacher as transmitter rather than consultant with S/R or Operant Conditioning assumptions."

(U/Brunel) Technology:

No use made of MT.

(U/041) Chemistry:

"I should like to spend more time on it looking more often at specific teaching skills. The times mentioned above are spread over four terms."

(U/042) Physics:

"This is hardly applicable - I cover an area of content with my physics students and then they prepare and teach chemistry and biology students a small topic in detail. The session lasts two hours for each student and I video it and discuss it with students later - they teach a 'circus' and so they teach different students who rotate five times in the two hours. They also go into school half a day a week teaching groups of anything from one pupil to many and hence a whole class. I don't do the Pure microteaching Type Course and so much of this questionnaire is not applicable and would give a unfair view of what happens."

(U/043) Mathematics:

"We have 9 students teaching a lesson each in rotation i.e. 1.5 hours, although in practice it takes much longer. So we do 4 groups of 9 and this amounts to 4 whole days on the timetable with 2 staff involved. No cutbacks (at present)."

(U/044) Geography:

"I use microteaching as a way of giving students an initial teaching experience in a sheltered environment. Criticism is offered by me and the rest of the group in trust and charity but it is not bland. It is seen by the students as a useful 'baptism': by me as useful in diagnosis of performance deficiencies. We do not use it for specific skill teaching. It is valued by both me and the students."

(U/045) Mathematics:

No comment.

(U/046) History:

No comment.

(U/047) English:

"We have time for only one session of this kind per student. Ideally I would like to experiment with microteaching and I would certainly like to have at least two MT sessions prior to teaching practice, with possibly another following TP. Each student's videotape is viewed by them individually (with a checklist), by the group (with lecturer led discussion), and frequently that is also an individual tutorial with the student."

(U/051) Geography:

No comment.

(U/052) History:

"Other colleagues (e.g. Maths., Geography) use MT in similar ways."

(U/053) Modern Languages:

No response.

(U/054) Physical Education:

"The present system used is not microteaching proper. Students use own expertise to teach the remainder of the group. School applications are tried and discussed by group as a whole."

(U/055) Chemistry:

"We take the video equipment in school and record students teaching and then play it back to the individual student with comment. If the students are also watching the lesson, they find it boring and repetitive to view the same lesson again."

Am not convinced of the value or cost-benefit of a full blown Stanford/type MT setup. We prefer to deal with the raw situation. TV presents a distorted view of selected experiences, it cannot replace total immersion in the classroom.

Discontinued this year due to lack of time."

(U/061) Chemistry:

"Video recordings and analysis of student-teachers giving a demonstration experiment as a preliminary to microteaching in schools."

Five afternoons in schools in teams of three students. They plan, teach and video record the lessons. Later analysed by themselves and tutors. Teaching skills noted on recordings then developed in subsequent lessons.

By using team teaching the students also learn from each other. The fact that they film themselves also allows a focusing by the operator on specific skill etc."

(U/062) Mathematics:

No comment.

(U/063) Middle School:

"Not completed as I am not using MT at the moment."

(U/064) Physics:

"Very difficult to complete your questionnaire if MT used is not the 'classic' form of MT. I call mine 'quantum lessons' since they are about the smallest step one could take. Also

different techniques are used with different groups depending on available time, relevance to the course etc. I don't think the picture my answers give really tells you much about what goes on or what I would reply if I used CCTV. I don't use it because it is used by other colleagues and so there is the problem of boredom setting in if the same techniques are used in several courses which the students attend."

(U/065) First School:

No response.

(U/066) English:

"Not with children, but we do run a couple of sessions of video recordings of students performing for/with other students limited to self-evaluation of performance in questioning and in practical drama, neither of these are close enough to your definition of microteaching to rate a response.

Our responses for not using the technique are though I think significant. It is certainly not from ignorance of its existence. We are moving towards school-based courses, and attempting to scale down actual experience for students by placing them in schools for two days per week, leading up to two periods of block practice. Our essential concern is to construct a programme of activities for students which gives them in the first instance limited, defined tasks in the classroom working in pairs or with a teacher, then progressing to full responsibility for the class at a later stage. This is very difficult to achieve but the DES is clearly pointing in this direction. As you will realise two days per week in school leaves us very little time in a PGCE course to teach the principles of a main and a subsidiary subject plus education options. However the real reason for our not using microteaching is not shortage of time but a deliberate decision to train by other means."

(U/071)

"I used MT on a limited scale here about 10 years ago. More recently I used it in Australia as part of a regular programme. I do not use it at all now, nor do I intend to do so in the near future."

(U/072) Junior/Middle School:

No microteaching is used.

(U/073) Fine Art:

"Use of studio equipment and children for six afternoons over six weeks."

(U/081) Middle School:

"MT was operated for a period of 2-3 years but due to other pressures has been dropped from my programme. It was last used in the 1982-83 session."

(U/082) Religious Education:

"My students have lectures, practice among themselves, observed others in schools and then go on teaching practice themselves for a term. I am not really sure that any of this quite fits what you are looking for."

(U/091) Chemistry:

"I find this particular session a) enhances student presentation, b) provides tutor with important feedback - it is however important not to hold session before group have begun to get to know each other, c) a half way stage to the school situation."

(U/092) Mathematics:

"I enclose an article which describes an alternative to microteaching which I am still using in a roughly similar way."

(U/093) Geography:

No comment.

(U/101) Geography:

"I've increased MT from token session to 5 sessions this year - much more successful and will continue. Cuts haven't affected in any way."

(U/102) Physics:

"The format has varied over the years. This year we asked students to prepare five 2 minute presentations on specified topics. The student 'drew' one of these and then acted as part of the peer group audience for the other 3 or 4 presentations. The student was then in a position to compare his/her preparation with that of his/her peers. Each group spent 20-25 minutes on this activity."

(U/103) Mathematics:

No comment.

(U/104) History:

No comment.

(U/Leicester) Science and Mathematics:

"I regret that I cannot find time to complete your questionnaire. Microteaching is what I should describe as an infiltrational activity here and without pursuing individual staff, many of whom are busy on TP supervision currently, it would be difficult to tease out precisely where and how it affects what we do."

(U/162) Humanities etc.:

"I make no use of microteaching on the PGCE course and cannot find 'appropriate responses' to tick on your instrument."

(U/111)

"This year is the first year I have not used MT in some form. The reason for this is mainly pragmatic. I have recently obtained some part-time help. This reduces the time I have for this fairly time-consuming activity."

(U/112) Geography:

"Clearly the logistics of coping with a small group like this are significantly less than if the whole PGCE group was to be catered for. Some reduction in time allotted in that the School of Educational Studies has no longer its own TV technician and has to use central services. This has been inconvenient rather than a crucial difficulty."

(U/113) Physical Education:

"Change in course structure (loss of specialist teachers) has caused reduced numbers and loss of time for MT. It is used by 'other subject' tutors instead."

(U/114) History:

"Facilities have improved, especially in the last 2 or 3 years. Equipment is more efficient, more portable and more economical. Tapes from previous years can be deployed for illustrative purposes with subsequent groups. Specific project material is used."

(U/121)

No response.

(U/122) Physical Education:

"Our MT programme is an integral part of the whole course."

(U/123) Science, Music etc.:

"Have cooperated in MT with CCTV but gains never seem worth the trouble. MT in itself is very valuable foot-wetting for most students."

(U/124) Technology:

"MT as defined by you is not used on my main method course. My group of 8 students do prepared lesson demonstrations to me with the rest of the group acting as the class. This takes place in the workshops and each student effort is discussed after the lesson by us all. Each mini-lesson lasts about 15 min. and every student does two before teaching practice."

(U/125) Biology:

"Radio microphones requested for 4 years, cut off budget on 3 occasions. It would pay you to survey the handouts/preparation sheets for forms of MT in use and to interview a few tutors and students."

(U/131) Modern Languages:

"Microteaching 'to embrace a broader range of student experience' - I take it this is the space! We make sure that our students have 2 sessions where they plan and teach a section of a lesson to their peer group before they go out on their first TP in the first term. This I think is all that is relevant for your questionnaire."

(U/132) Primary School:

"I apologise somewhat for the negative response. However as you can see some facilities we have and some use is made at the secondary level in some areas I believe. My own attitude is not so negative - it is very much a question of resources - namely time. I equate MT rather with small group teaching within the classroom. My 'attitude' is largely derived from those kinds of experiences, within a school or within a college with the children coming into the institution. I consider a lot of MT occurs as group work etc. as the natural part of teaching in a Primary School."

(U/133) Geography:

"I am currently on study leave and this period marks the end of my work in initial teacher education. I am enclosing your questionnaire untouched."

(U/134) Physics:

"As ever, PGCE programmes vary from place to place and there is some mismatch between your Questionnaires and our practice.

There is also some mismatch between your rather complete view of MT and our more incidental use of it. Over the course of several years the opportunities to look at several aspects of MT arise but it remains ancillary to TP."

(U/135) History:

"I have retired, without replacement, and there is now no main PGCE history group here.

(U/136) Mathematics:

"Practice varies from year to year. Sometimes maths and science students present a group of lessons in sequence on a topic (e.g. Blood) to a peer audience. Sometimes maths teach own choice of maths topic to maths group. Sometimes they work alone in groups of three. Sometimes maths groups teach general topics e.g. sailing a dinghy.

Sometimes we practice a special skill: writing and introducing a work sheet, starting an investigation, computer aided teaching, using a visual aid or practical material."

(U/141) English:

"More admin work has pressured me into thinking of abandoning MT but student response remains enthusiastic. Technicians' time is very short and bookings have to be made long in advance. One technician may (eventually) have to be replaced. This would put the whole MT in jeopardy."

(U/151) Modern Languages:

"Facilities good but used to breaking point. Would like more time for MT but with 200+ students..."

(U/152) Biology:

No comments.

(U/153) Physics:

"Also use MT in Summer term for remedial work with the odd student who will benefit. This involves teach/reteach to groups of primary school children."

(U/154) History:

No comments.

(U/155) English:

No comments.

(U/161) Mathematics:

"Most of my answers relate to MT in the dept. Each group of 4 students is allowed 2 hours during the first 8 week term in the TV studio. Each student then teaches a topic selected from a short list suggested by me and the rest of the group act as audience/camera operators. I see the experience as one mainly in which each student gets the opportunity to see any idiosyncrasies etc. whilst they perform and thus be given the opportunity to correct (or even enlarge) these before TP.

The students also do student/small group teaching in local schools in their first term. I have not really included this information above."

(U/162) Modern Languages:

"I am in my first year of being assistant tutor in this department - it is a 'joint appointment' where I spend 2,5 days teaching in a local comprehensive and 2,5 days at the dept.). The MT was one of the responsibilities I was asked to take over. Unfortunately, because of the constraints of my timetable and the day attachment, I had only 4 available days towards the end of term to fit in all the students. It was, therefore, a rather rushed and not very well thought out series of sessions although the students said it was very helpful. I hope to re-think the MT for next year and would welcome suggestions and ideas if your study produces any interesting feedback that is publicly available."

(U/163) Physics:

"I used to do more MT, each student did 3 sessions to groups of 3 other peers and tutor. However, due to pressure on time and lack of conviction that it was useful or cost effective, I reduced it to one session only - which also gives them an opportunity to practice demonstration and to see themselves as others see them."

(U/171) Chemistry:

"We operated one session of MT for all science students during the academic year 1980-81. The students taught a 15 minute lesson to 8 school pupils and were recorded on video. They saw the replay the next day. Three microlessons were run concurrently (28 students were involved). There were no repeat sessions. A fully equipped studio was used in addition to two

laboratories with portable TV equipment. The exercise was not repeated because of the problems in setting it up and the lack of opportunity for repeat sessions. We do, however, videotape school-based team teaching and provide the students with playback."

(U/172) Fine Art:

"We are now starting to make programmes in the Summer term as TP follow-up. This involves editing, sound tracking and titling. Most of these 'programmes' are 'demo's' of art processes by teachers."

(U/173) Geography:

"Increased steadily as schools make more use of specially prepared MT by students and appreciate more and more what we can do for them and as students appreciate what it can do in preparation for TP in the Lent term. In the Summer term we have groups of up to 150 children divided between the students for field work prepared by myself and students and this continues MT skills and full TP skills acquired."

(U/174) Mathematics:

"Although, we do have some facilities for MT here, including a fully equipped TV studio the demand of particular sections of the School of Education (e.g. the Guidance Unit) is such that it is virtually impossible to make regular use of it even if there were plenty of time available."

(U/175) History:

"Logistic difficulties i.e. transportation of pupils to studios on site or taking out equipment with technician who is very much occupied with a range of A-V duties for the entire School of Education, pressure of other groups (PGCE and others Depts in School of Education) on limited number of rooms and equipment. I have tended to take students into schools on Study Practice practising a range of skills but without recording equipment. I use CCTV so that students can see and hear themselves - often the first time for them - teaching their peers as peers for the most part."

(U/176) English:

"Good improvement in facilities, 3 cameras (instead of 2), colour instead of B/W, excellent control room/mixers etc. No mention made in questionnaire of subsidiary purpose of exercise e.g. to familiarize students with CCTV/camera operation, recording, mixing etc."

(U/181) French:

"Generally MT is seen as a useful but peripheral technique, of definite but limited value within French Language teaching."

(U/182) Physical Education:

"At present we do not include MT in our physical education method course. However, next year we hope to remedy this as we have just acquired a portable video and will have school children available in the department."

(U/183) Physics:

"Sorry to be unhelpful but we do not use MT in the physics PGCE method course."

(U/184)

"Sorry - but I have no experience of MT so feel quite unable to respond to your detailed questions."

(U/191) Biology:

No comments.

(U/192) Modern Languages:

"I've tended to move - in response to student requests - away from recorded MT with 4/5 participants to live MT with whole student class. Quality of work has - if anything - improved. There seems to be a more economic use of time."

(U/193) Geography:

"I like to keep everything on an informal basis as I do not wish to put any further weight on the students - they have enough things as it is."

(U/194) Mathematics:

"We do not use a form of MT, as defined in your letter. I have little confidence in its use and prefer students to spend more time with small groups of pupils in local schools, facing the complexity of what that entails."

(U/201) Primary:

"Questions not answered were due to the informal nature of the course here. Students are not formally introduced to MT unless they request it. The extent of the use is dependent on expressed student need."

(U/211) Chemistry:

"My use of MT has been limited by moving to new accommodation and changing Dept. timetables. My personal commitment is so high that I cannot fit these sessions in at another time when AV facilities might be available. Personally I believe that a short session of seeing ourselves as we are seen by pupils and peers can help to improve presentation. You cannot teach how to teach, this is largely an inborn intuitive skill."

(U/212) Physics:

"I propose to develop the present use of MT to include 'reteach'."

(U/213)

"We do not undertake this method."

(U/214)

"I do not operate MT under your definition. When facilities - i.e. time in the Audio Visual studio was available and I had smaller classes I used MT - defined as a short presentation by one student teacher to the rest of his group. This was video recorded, played back and discussed by the whole group. Various constraints have rendered this impossible during the past three years. I did feel the method of value in highlighting aspects of presentation."

(U/221) TESL:

"This very limited exposure of students to MT is explained by: a) absence of real pupils, b) lecturer's desire not to adopt an atomistic or molecular view of teaching performance prematurely, c) value of the experience primarily as affective, launching students into exposure and consequent open scrutiny of their performance, d) creation of ineluctable incentive to plan thoroughly, to commit oneself to a plan, recognize divergence between intention and execution."

(U/222) History:

No comments.

(U/223) Geography:

See Preliminary Questionnaire comments.

(U/224) English:

"Organisation Questionnaire not relevant to PGCE English here. As MT is a hypothetical issue in my circumstances, I would be grateful to receive no more questionnaires!"

(U/225) Modern Languages:

"I used this approach for the first time this year with the aims of a) making each student 'perform' in French/German in front of the peer group and b) providing them with first hand experience of 'getting up and giving a lesson', and being observed/evaluated by other students afterwards.

I would like to see this technique used more, but not to 'simulate the school classroom'. I would like to video student performances and we have the facilities to do this. Last year (82/83) some PGCE students taught *ab initio* German and Italian to some of their peers. This I regard as 'real' microteaching, and more valuable/useful than 'simulated classroom' sessions."

(U/226) Primary:

No response, but use MT.

(U/231) Chemistry:

No comments.

(U/232) Modern Languages:

"The programme is designed to give practice before school practice begins. All students will have received at least 7 hours (probably rather more) preparation in lectures/discussions on practical and theoretical aspects of language teaching.

In turn all students teach one lesson to their peers for which they can and do consult their tutors. The lesson is discussed in the large group of language students and subsequently in the smaller groups where the students of each of the languages involved assemble with their own tutor."

(U/233) Biology:

"I cannot answer the questionnaire since I neither carry out, nor agree with what you are referring to as microteaching. I have responsibility for a class in a local school. My students observe my teaching of them. They then participate in planning and, in turn, carry out part, then all of this class's normal scheduled biology lessons. Your questionnaire is hardware orientated. This is not a useful approach."

(U/234) Further Education:

"Initially a lesson of 30 minutes was recorded in full but we are now considering introductions before the 30 minute session."

(U/235) Geography:

"I used MT for some years with my group but found it too time consuming in terms of a) limited learning outcomes, the group were bored after 3/4 lessons, b) inherent artificiality of the whole exercise."

I now employ two staff to carry out a full critique of a lesson I teach, to give them an insight into teaching methods and the roles of the visiting tutor - adviser first, examiner second."

(U/236)

"It appears that you are making assumptions about MT which simply do not apply to our way of working. We do not use recordings because they induce self consciousness, the playback is time consuming and not always profitable and because our equipment is often unreliable."

(U/241) Mathematics:

"MT needs to be early to be of value in our course, where students visit school weekly and commence first TP in the fifth week of the main course (they already have a week's primary experience). The MT experience allows students to see themselves in action, to get critical comment from peers and an overview from tutor. The students are told to 'use questions and get active responses' from their class in solving a maths problem chosen and proposed by them. The feedback from students on its usefulness has been good. I have varied the patterns of the sessions in the past, but not the basic format. Nobody is excused! No major developments or cutbacks. Tried schedules but dropped them. Use them and CCTV in Summer term, for different purposes."

(U/242)

"No responsibility."

(U/251) Modern Languages:

No use made of MT.

(U/252) Mathematics:

"Not microteaching in the valid sense. Students prepare package of work: lesson notes, scheme etc. and involve group in at least two activities and some of the worksheets. Discussion follows of whole package - lasts 30-45 minutes."

(U/261) Modern Languages:

"The following is a better guide to what we do than the above, which forces the information into a format which might equate it with something very different in another institution. We have a weekly session, in the Autumn term preceding full-time TP, called 'Classroom techniques'. A 'technique', such as games, writing/drawing on the blackboard, question and answer, OHP, listening techniques (including TR), is talked about and demonstrated by a member of staff. The following week the students in tutorial groups of 6, 'teach' their peers for about ten minutes, having performed a 'spot' defined by the lecturer. Sometimes, on an ad hoc basis, a tutor may record the session on videotape with the aid of one of the technicians. Good facilities are available. Follow-up in either case is informal in group discussion. The role of those 'taught' is not defined. They can neither be themselves properly, since they know what is being taught, nor can they be children. They are an ill-perceived and somewhat embarrassed mixture of the two. Several tutors use some form of MT, in that case usually videotaped, as part of their weekly two hour 'tutorial' (groups of 6/7). This use is ad hoc and unquantifiable."

...I feel that fixed categories for something so loosely defined as 'microteaching' become pretty meaningless when used by different people in differing circumstances."

(U/271) Modern Languages:

"I see MT as an aid and the assumption of your questionnaire seems to imply that it is some sacred cow. I use the technique in an informal and personal way in tutorials and the 'pupil' students play a role as to how quickly or well they respond to a question. I teach the methodology of French/Spanish teaching and see MT as an initial pre-school TP introduction."

(U/281) Physics:

"I used to do some MT 'peer to peer group' but do not do it now. Students have one morning a week in groups of 4, one student in charge of a junior science lesson in a local school throughout the Autumn term. A lecturer attends these lessons and there is a one hour

discussion immediately afterwards. Some of these lessons, about one per student are video recorded, to illustrate the discussion."

(U/282) Mathematics:

"Microteaching has not used technical equipment – sought to simulate classroom situations – great value found in peer criticism and evaluation."

(U/291) History:

"For some 15 years I have had groups of students teaching over a period of 4 or 5 weeks at a nearby school. The students are responsible for the topics in the history syllabus.

We plan together how the topic is to be handled and try out historical skills e.g. simulation, use of evidence etc. We cooperate closely with the school staff who involve themselves in the work. During the same term the student would take another piece of MT over 2 sessions in groups of 2 or 3, when they teach each other on the Nature of History, Historical Explanation etc."

(U/292) Biology:

"The class consists of 'peers' not children at present, I do not consider this ideal or in a full sense MT. As I understand MT this is strictly defined as work with groups of children. However, I do spend one or two half days each year in which my methods group each teach the class and the video replay is seen and commented on by the class."

(U/293) Physics:

"Half a day before TP. A prepared start to a lesson of the student's choice is given to the others in the group and televised. The video recording is used for self-assessment – but no pupils are involved."

(U/294-11) Classics, 2, Mathematics, Chemistry, 2, R.E., Geography, English:

Some MT, see Preliminary Questionnaire comments.

(U/301) Biology:

No comments.

(U/302) Sciences:

"I have been attempting to provide a system of MT which actually takes place in the classroom. With the B.Sc. students I have achieved this and it is proving successful. With the PGCE students it is not yet possible because of the time constraints of a one year course but I am ever hopeful."

United Kingdom: Polytechnic responses

(P/331) English:

No use made of MT.

(P/332) Middle School:

"This is not an aspect that we have been involved in. We are certainly prepared to make use of it as a technique where appropriate but have not done so yet."

(P/333) Modern Languages:

"Students tend to criticise the unrealistic aspect of MT at first (peer teaching) but in general come to see its value as a check on their mannerisms, variety of methods to ensure meaning, use of voice and movement in the room. I always start off with a microlesson of my own – this usually helps although sometimes they have been intimidated. I would prefer to take a portable camera into a real classroom on TP and in fact have done so on several occasions but only the more confident students can take this. MT as a means of disseminating ideas for classroom practice is also valuable."

(P/341) Education:

No comments.

(P/351) Education:

No comments.

(P/361) Education:

"Plans are to extend MT to include children."

(P/371) Home Economics:

No comments.

(P/372) Art and Design:

"Dealt with as an 'extra', in danger of being squeezed out of programme - time consuming, valuable, yet 'hard to sell' to colleagues. Usually most valuable in retrospect, its absence creates a void in student experience.

MT suffers from its generic title, its flexibility and relevance for idiosyncratic needs seems to be misunderstood - certainly undervalued, in my opinion."

(P/381) Science:

"TV not used. Dry teaching to peers as pupils, discussion after each performance."

(P/382) Social Studies:

"Basically a mix of: a) peer teaching (as peers) - specific skill or sub-skill 7-10 mins., b) pupils in college - whole lessons usually focussing upon specific skills e.g. running a discussion or simulation."

(P/383) English:

"Because of the increasing demands made upon our Subject-Education PGCE courses, we have had to neglect MT (together with other areas) in order to accommodate these new areas. This is something I regret. I recognise that we need to find time for it somehow."

(P/384) Modern Languages:

"In some PGCE years we have video-ed and played back, not this year or last. We find for most that our present system (without video) is very good."

(P/385) Music:

No comments.

(P/386) Home Economics:

"We use a combination of 'peer group' and 'pupils' for the classes - initial classes peer group, later classes pupils brought into the Polytechnic."

(P/387) History:

"We used it until last year and now try more school-based activities."

(P/388) Mathematics:

"When operating in increased group sizes (28 split in two sub-groups) the opportunity for the individual student becomes limited and the pace of the 'operation of MT' has to increase (in a crowded curriculum). In consequence frequently MT activities are continued throughout the course when discussing particular skills as methods of organisation."

(P/389) TESL:

"Some students find it useful, others not so. Amount used in any year depends upon receptivity of group. As much TESL teaching in schools is with very small groups (2-4 pupils) or individuals, the skills needed are much more 'personal' than in class teaching, so microteaching has limitations anyway."

(P/3810) Home Economics:

"Two MT groups operate at the same time, the second group is in an improvised demonstration room. The sessions are seen as valuable by the students."

(P/3811) Geography:

"MT session focusses mainly upon: a) Small teaching focus e.g. visual aid, use of map or text, limited teaching point, etc., which student knows will be part of their coming first block practice i.e. part of a lesson they know they will be teaching. b) MT session occurs during a series of sessions on language in geography, thus emphasis of MT is chiefly upon language aspects e.g. questions, handling pupil response, etc., although other areas e.g. blackboard work, sequencing of learning, etc., are touched upon as and when they arise."

(P/3812-14) 2,2,Art and Design:

No use made of MT.

(P/391) Art and Design:

"We do not currently incorporate MT in our current course.

The current course ends at the end of the year when it merges with a music course. The new course does definitely plan to have an MT component early on but I am not involved.

'Method' is currently taught through the actual school practices, and through lectures, simulations, workshops, tutorials in the college (notably before the first TP).

(P/401) Education:

No actual use of MT, only in method courses.

(P/402) Design and Craft:

"Having experimented with 'peers as pupils' and 'peers as peers' with various groups, I believe more value can be gained from the former despite the wide difference in treatment of the first

and last 'victim' in the series. MT has proved particularly valuable in the present TP pattern with first practice in the fifth week of term 1 and final TP throughout term 2. It is often the activity which establishes a true group identity in my subject area and breaks down the barriers between student/student and student/tutor."

(P/402) Science:

"We are about to introduce videotaping of sessions."

(P/41)

"Our PGCE course has been closed by the DES - our last intake finishing in July 1988. Sorry we are not able to help."

(P/421) Education:

"You may have difficulty in scoring the attached responses as some of the questions and statements do not correspond to our way of working and more importantly to our philosophy (if this is not too grand a word). Most of the responses have been completed by the Resource Tutor who meets the PGCE students for most of his time on an informal basis usually arising out of the perceived needs of students as seen by themselves.

All PGCE students operate in a syndicate (5 or 6 students). The responsibility for organising much of the work rests with each syndicate. Presentation (3 per year) and development of 'performance' skills are planned within syndicates who determine own programmes. Advice readily available from tutors. Syndicates are formed at interview in cooperation with associated schools."

(P/431) Economics:

No use made of MT.

(P/441) Science:

"A lot of the MT is not done with video but taught to peers, only when the student is confident enough is CCTV used.

Obviously your idea of MT must always use TV. This is not the case and it is in fact better not to put the student under threat of TV in the initial stages of training. It might be more appropriate later as they come to use TV etc."

(P/451) Modern Languages:

"No microteaching sessions have taken place in the last four years. The problems have arisen from having to organise a large group of students and in trying to ensure continuity."

(P/452) Education:

No comments.

(P/46)

No response.

United Kingdom: College responses

(C/501) Social Science:

"We consider MT to be a valuable aid to the acquisition of professional competence and one basis of sound and uninhibited evaluation of practice. We could prepare students without it because we use day placements combined with observation schedules."

(C/502) Music:

No use made of MT.

(C/503) Mathematics:

"I had to revise my responses when on careful rereading, I discovered our version of microteaching does in fact fall within your definition. During the Autumn term my PGCE students have a weekly experience of what we call MT, when one of them tries out a planned piece of teaching on the rest of the group who subsequently engage in constructive criticism. Since our PGCE programme is very much school based, the above suffices."

(C/504) Modern Languages:

"We cannot really say that we have so far tackled MT very systematically, partly because the designated room is not always available, partly because we have a system of student attachment in schools from the outset and right through the course, so that the real classroom is readily at hand with real children and conditions in which to operate. However we are planning to

improve the system next academic year."

(C/511) Primary:

"We are currently considering introducing MT on a new PGCE course starting Sept.'84 but initially it is likely to be on a small scale. We foresee the main problems to be the organisation and timetabling of MT sessions in what is already a very full programme. At present we are considering the strategy of filming students in local schools to avoid the difficulties of bussing children from a geographically dispersed region to an isolated college. We are using George Brown 'Microteaching' and Hargie and Maidment 'Microteaching in Perspective' as our main guides. We have some 20 students on our primary course and if we have MT it would be a compulsory element of a unit called Development of Teaching Skills and Strategies, which forms one theme out of six in the Educational and Professional Studies course, and is allocated approx. 18 hours contact time."

(C/512) Music:

"These replies are not 100% accurate! We have been operating our 'Bath' plan, when students make weekly visits to schools, in small groups, with a tutor in attendance, for many years. Obviously the schools in which we operate (usually 6 Junior and 6 Secondary) vary enormously in their provision. Tutors are attached to particular schools and work out the schedule for the students with the class (or music specialist) teachers in the schools. Student numbers going out to schools also vary - as do the size of groups which they teach."

(C/521) Education:

"First year of running a PGCE course."

(C/531) Education:

"Not a component of any course this year because of staff changes."

(C/541) Fine Art:

"There are fairly frequent technical hitches which are frustrating for lecturers and students. Two rooms now available with equipment set up, but they are heavily used for other things as well as MT, so have to be fought for. I have reservations about usefulness of MT - students complain about artificiality and vary in level of commitment etc. I have tried various approaches - most successful has been to do 3 sessions immediately after first TP and using bits of TP schemes - to peer group, but as themselves. This has produced much better discussion than work actually prepared for the MT session and is one way of helping students make more of what happened to them on TP."

(C/542) English:

"As far as I know they do not use MT."

(C/543) Education:

"There is no central MT unit in the College and any MT which takes place occurs within other courses rather than comprising a separate course. It is used within psychology, language, professional studies."

(C/551) Education:

"In an 8 week course I use one MT session unrecorded with peers, one recorded session with pupils and one unrecorded session with peers. The skills emphasised are a) lesson preparation, b) lesson preparation, presentation and interactional skills, c) the lesson as part of scheme."

(C/551) Physical Education:

No use made of MT.

(C/561) Education:

"First part of course before TP1 aimed purely at providing 'survival' skills. Second part after TP1 and before TP2 concentrates more on systematic lesson plans involving objectives, task analysis, variation in approach and activity etc., ending in minilesson which brings all aspects together. We are concerned about the lack of reteach but prefer the course to be broad."

(C/Dorset IHE) Further Education:

"The Institute no longer runs a PGCE course, hence your query has been referred to me, as Course Tutor for the Certificate in Education (FE) CNAA. This course is equivalent to the PGCE but is spread over two years of part-time and block-release attendance. They only do MT in the first year of the course - which is a pity - but this is determined by external constraints."

There is a total of 10 hours devoted to the microteaching sessions and each student (we normally have 20) gets only one exposure."

(C/571) Primary:

No comments.

(C/581) Physical Education:

"We don't run a PGCE course at college. The nearest we have is a three year part-time B.Ed. (which is roughly equivalent to one year full-time). Our use of MT with our pre-service courses has changed because of having to deal with larger numbers of students. We don't record every style - although students practise every style and receive feedback from a partner who uses an appropriate style of teaching to give her feedback."

(C/591) Social Studies:

"The programme is designed to prepare students in the 'performing arts' of teaching, before they engage in a 4 week period of school-based work. The skills assessed are the introduction and presentation, since this is vital to a success of a lesson. Additionally it helps me to predict areas of potential weakness."

(C/601) Science:

"The reply is made on behalf of biology, physics and chemistry PGCE tutors. Reduced number of sessions because of reduced teaching programme, cut out Question and Answer sessions."

(C/78)

History and English make use of MT.

(C/78)

Offered to all students as part of general programme, no detailed response.

(C/611) Education:

"This questionnaire doesn't really suit our PG programme which is very different to our B.Ed. programme. We don't have time with the PG's to do set induction (a pity!) - so we launch into question skills.

PGCE's work through carefully prepared series of exercises on Questioning skills. They come 'cold' to each session. We don't allow preparation believing 'questioning' is best learned by 'shooting from the hip' after a short period of preparation on an unseen passage during each MT session.

Here we have developed our own set of tapes and exercises and really operate a group phenomena more than an individual one. Each group operates as a group for 6 weeks, hence the old MT paradigm doesn't really apply."

(C/621) Middle School:

"Extended the number of sessions so that students have opportunity to do specific skills. Have incorporated school teachers into the assessment of the skills. We have also done some MT in school classrooms."

(C/622) Education:

"Originally introduced by myself with PGCE students as I was course leader. Later demanded by B.Ed. students.

Attitudes vary from student to student and from year to year - last year mixed, this year very enthusiastic. I think tutor feedback is key to success - must be prompt, must be professionally relevant - in my experience must be individual."

(C/623) Commercial:

No comments.

(C/624) Slow Learners:

"It has been found necessary to give at least two lecture sessions in preparation for MT specifically to give students sufficient confidence. They seem unable to transfer appropriate lectures (e.g. on questioning technique) unless it is directly related to MT. Without this preparation (in previous years) they have been apprehensive and resistant to MT."

(C/625) Middle School:

"An afternoon x5 weeks allocated to total group (8) and 2 tutors. Students record for each other outside studio - indicate finish. Immediate feedback (4x40) and comment. Access at any time for individual student playback with other students or tutor on request. Last teaching

session tests 3 skills (variation, questioning, reinforcement), students have individual cassettes."

(C/631) Self Selecting:

No comments.

(C/632) History:

"Microteaching is not video taped. The work is carried out on an informal basis as an early introductory exercise."

(C/633) English:

"I have insufficient experience of MT to offer any useful response."

(C/634) Sociology:

"We have 8 students taking Sociology as their Main Subject. They do no MT as part of the course, although some might be involved in MT as part of their professional course."

(C/641)

"We have just introduced MT. We are developing this area and learning as we go. The way in which the recorded material is discussed against some form of checklist is emerging as important."

(C/642)

No use made of MT.

(C/651) Science:

"MT facilities have improved greatly during the last 3-4 years here. We use a limited proportion of what is available, for a very limited purpose."

(C/652) Primary:

No use made of MT.

(C/653) Education:

"Basically the MT sessions are part of the course in the first term before TP that directs the student to an analysis of what goes on in the classroom. It is therefore used in a very general way - and not directed at the teach/reteach model."

(C/654) Education:

"We have tended to move towards close examination of interaction skills in a relatively intimate situation among a small group of students (9) in which objective analysis of tutor performance is used as a basis on which the confidence to individual experience 'in this media' can be built."

(C/655) Education:

"Particular arrangements have varied each year but the answers above attempt to reflect 'normal' practice. Variations have resulted from evaluation of actual MT but also to 'fit' into demands of other aspects of course."

(C/661)

"Basically satisfactory and valuable session which proved useful diagnostic exercise for lecturer and abundant material for subsequent discussion in professional tutorial. Direction in which to move issues be to more rather than less MT, varying the demands and contexts."

(C/662) Mathematics:

No comments.

(C/663) Modern Languages:

"We started by placing MT immediately before TP and simulated a 'first lesson'. We have gradually brought MT forward and found it invaluable in: a) giving students an opportunity for self evaluation, b) alerting tutors to serious weaknesses early in course, c) giving students confidence before embarking on school attachment which precede TP."

(C/664) Geography:

"In the terms of your definition we do not use MT on the course. The contact with pupils during the first term is through field study in the local area where students are responsible for 5 or 6 pupils and teach them for a normal period length, and group teaching in which 4 students teach a class for a period of 4 weeks (usually a double lesson a week). They plan the work jointly and take turns to lead the lesson and all assist in pupils' discussion groups etc."

(C/665) Mathematics:

No comments.

(C/666) English:

"Such MT as I have attempted in the past has proved to be far too time consuming in terms of

organisation to warrant its inclusion in the short PGCE methods course. I have found it much more useful to arrange for students to work in schools with groups of 6/8 pupils for half a morning each week in the term prior to their TP; with experienced teachers and myself monitoring their work and discussing it with them afterwards. I have yet to be convinced for the need of all the electronic gadgetry involved in MT."

(C/671) Modern Languages:

"No response. I video record lessons taught by PG's in a local school. Lessons are prepared in consultation with me, video-ed and then reviewed by the whole group. We concentrate less on skills and more on content and pupil activities. Skills are encountered as by-products. The same class of pupils is used throughout and we try to select a theme e.g. Past tenses so that lessons fit into a coherent pattern and one sees development between the first and the last lesson."

(C/672) Science:

"Very little time - physical science method occupies only about 3,5 hours per week shared between a Physics Dept. lecturer and myself (Chemistry). So unless the student group is keen enough to run them on their own - happened once or twice and always encouraged. Students do a minor elective also (frequently biology) about same time and of course Education Core and school visits. Reteaching is absolutely out of the question with my time scale!"

(C/681)

No comments.

(C/682) History:

"Students approach MT with apprehension despite reassurance and help with preparation. I think this is because, for most graduates, it is an experience which is so different from their previous academic work that they feel timid. In retrospect they appreciate the preparation, practice and evaluation as a useful prelude to the first practice in school."

(C/691) Education:

No comments.

(C/692) Mathematics:

"Our MT is Mock Teaching, mainly to provide experience of planning and presentation of a lesson. The type of feedback obtained is useful but does not resemble sufficiently true school experience for us to extend this work. Other lecturers other than mathematicians conduct MT in an entirely different way. '...so that a student can obtain feedback in order to make his teaching more effective.' is not a significant part of our definition of MT."

(C/693) Modern Languages:

"We have not so far used CCTV or Audio equipment for MT as there are practical problems. Apart from 3 hours, MT of a sort takes place in up to 10 periods of 90 mins. for part of the time, when demonstrations of teaching material also takes place. This questionnaire does not really fit our situation."

(C/694) Science:

"Will possibly transfer to miniteaching next year by taking groups into school and using pupils as pupils." (C/2605) Mathematics:

"Getting students to microteach has high priority - and we (all 3 of us) are now devoting time to it in the four weeks before TP in term 1. The palaver of setting up CCTV etc. (or going to a special studio) is not felt to be justified in such limited time available."

(C/696) Physical Education:

"MT not possible within the course - due to a) limited theoretical background in P.E., b) P.E. is offered ONLY as a second subject strength i.e. 20."

(C/701) Mathematics:

"Answers not supplied to most questions because only recently become re-involved with PGCE course. As yet not therefore organised any MT. Time also is at a premium!! Our PGCE students are sent out into school placements quite early in the course and I see it essential that MT takes place prior to school placements."

(C/702) Biology:

"Questionnaire difficult to answer and unsuitable in part for what we do."

(C/703) Primary:

"Reservations as to value on one year courses and limited use (i.e. only used on 2 occasions with students). Anxiety making for many students - this would decrease with greater use. 'Effective questioning' focus can lead to student fixation in asking higher-order questions

rather than listening to and responding to pupils as the mini lesson develops. In many ways the great value is for students just to see themselves with children - note mannerisms, poor speech, etc."

(C/711) Economics:

No comments.

(C/712) Modern Languages:

"Technical support excellent, facilities do precisely what I have demanded. Post final TP introduced for current session, no feedback as yet. Previous year's microteaching shown in week 7 (i.e. after TP) to show development of skills. Cognitive model based, on explicit FL teaching methodology."

(C/721) Science:

"MT has been used to prepare PGCE students for a first TP. The course structure is such that this arises after they have been in college for 6 weeks. As this time is short MT covers the need for some kind of TP preparation which involves teaching children. This is preceded by students teaching their peers but not in a MT situation. This is carried out in a laboratory. Students find MT very rewarding (their own evaluation afterwards) but traumatic at the time."

(C/76) Primary:

"The PGCE Junior students are not exposed to microteaching - regretfully."

(C/79)

No use made of MT.

(C/Chester) Education:

"Minimal use as part of Curriculum Design course."

(C/Chester) French:

"Minimal use of MT."

(C/Guildhall)

"MT has no relevance to this institution."

(C/Bell C. of T.)

"This is not a teacher training college."

(C/Galashiels)

"We regret no teacher training diploma courses operate at this college."

South Africa: University responses

(S/801) Education:

"Since coming here, amount of MT increased from 2 sessions per group of students to 4 and from 1 hour sessions to 1.25 hours (in response to staff and student requests). Moving to colour (now in 2 venues out of 3). Have planned 4 MT suites (some differences between them for functional reasons) for new Education building for 1986. MT suite used (and new ones designed) for a variety of uses."

MT is part of an integrated introductory 3 week programme at beginning of course. The introduction is to the practical elements of teaching and learning, with relevant theory. The intention is that the aspects and issues so introduced will be taken further later in the course, using the spiral notion of Bruner."

(S/802) Guidance:

"I am rather new to the field and hence find some of the specific questions difficult to answer. I have tried to be as accurate as possible. My method is Guidance but this is not done in the MT programme so I allow students to do their other method subject."

(S/803) Mixed B.Sc. group:

No comments.

(S/804) English:

"Microteaching sessions have been expanded from 2 to 4 sessions. Session has been lengthened to allow more time for discussion afterwards."

(S/805) English:

"In addition to the televised MT in the IT programme we also have students teaching their peers in slightly larger groups approx. 8 students. This is done live and is followed by some discussion."

(S/806) Second Language:

"Some students derive more benefit than others from MT. A few students in the past have indicated that MT is a total waste of time but good fun!"

(S/807) African Languages:

No comments.

(S/808) Afrikaans:

No comments.

(S/809) Physical Science:

"I never received any formal training for 'follow-up to microteaching' and have found that opinions/methods on how best to handle the follow-up vary. My own 'ad hoc' methods have been developed as a result of completing a 'personnel management' diploma and receiving practice in THAT context on how to handle 'assessment, evaluation, salary adjustment' interviews. I feel comfortable about how I do the work, the students seem to me to be positively reinforced but I sense big gaps (variances) in the STAFF MEMBERS' perceptions of how to handle things."

(S/810) Portuguese:

"I have nothing to do with the organisation of the programme." Acts as tutor for mixed group.

(S/811) Foreign Languages:

"Highly recommended especially for the ones who have never been in front of a class - first MT not very good, but students learn/adapt quickly."

(S/812) Hebrew:

"This has been a useful exercise in getting students to develop confidence in front of a group. It also helps students to structure the lesson in a critical fashion. The student gains confidence by seeing the fears and dilemmas of other students. Student feedback is invaluable, as weaknesses are quickly picked up and good points stressed."

(S/831) Education:

No comments.

(S/832) Education:

"Originally MT was with audio recording only. There was a break in this due to staff changes and then it gradually built up again, first with B/W equipment and more recently with much improved colour cameras and monitors.

MT as we ran it these last three years is, I feel, worth while and a very good learning experience for students."

(S/841) Mathematics:

"The staff are asking for colour TV for micro teaching but in the present economic climate this is unlikely and their reasons for wanting colour are only marginally connected with MT."

(S/842) English:

"MT in this method has been running for 8 years. Purely voluntary for two reasons: a) many students are terrified at the prospect especially before first TP, b) biggest method course (average 28). With discussion playback etc. this would use up 20-25 hours (i.e. 25% of entire course!). Used in close conjunction with skills gained in G.E.M. Theory of Education course (i.e. questioning, group work etc.). MT especially important before first TP (i.e. Feb - April) and much less important for 2nd TP (Sept - Oct). Many of the initially nervous give it a go just before 2nd TP".

(S/822) Primary:

"Thankyou for sending me the questionnaires but I cannot fulfil your request for two reasons. Firstly, I am involved with Primary Education rather than Secondary at this University, and secondly, at this time of year I do not have time to complete questionnaires."

(S/851) Education:

"We are going to be having a purpose built facility within 2 years - building operations have just started. We are hampered by a severe lack of time. Some students have asked for more time but we will perhaps only increase the time spent on MT by a small amount."

(S/871) Education:

"MT takes place in various centres and under various circumstances. It has been done very much in an experimental way and has been used as a contact situation for students to discuss

problems of a practical nature. It has been structured very loosely up to now."

(S/872) Education:

"We apply the global approach due to our circumstances. We usually make use of an ordinary classroom in the various centres in the country."

(S/873) Afrikaans:

"A marked shift towards subject-orientated MT."

(S/874) Education:

"I have given you the Staff Development programme here as my colleagues will have given you the information on the HED course MT."

(S/881) Education:

"Your 'findings' would be illuminating - I am sure, if one could be allowed to have a copy. I am keen to make a detailed study of MT at an established institution. Thanks."

(S/882) Mathematics:

"I would like to see MT after June school experience - then it would have value."

(S/883) Accounting, Business Economics:

"We have only started with MT this year and it is still in its baby year."

(S/891) Education:

"A mark is eventually allocated which is added to the Practice Teaching mark."

(S/912)

"I would like to integrate real school children and classes in the development of students in the act of teaching. Students should have longer periods of actual teaching than 5-10 minutes."

(S/921) Education:

"MT is seen as an opportunity to implement educational theory. It is based on the HED course as a whole but especially on the content offered by the Department of Didactics and subject didactics."

Pupils of approx. 10 High schools are incorporated in the MT programme. They visit the Faculty of Education for 3 hours every Wednesday morning throughout the year."

(S/932) German, Geography:

"One works on the principle that there is no better motivation for improvement than self-observation. Very few people have the ability to 'step out of themselves' unless the palpable evidence is set before them. Students deem it important that recordings should afterwards be erased. Apparatus simply installed in lecture room. No special consoles etc. - wiring in cobweb fashion whenever needed."

(S/962) History:

"So far we haven't had breakdowns: 'faults' are lecturer errors and may delay a session a day until the technician finds which switch is wrongly set. It is supposed to be 'lecture proof' (I hoped) but even I sometimes goof."

We really have so little experience that it is embarrassing to be answering questionnaires. The equipment has been here 18 months. I was away 6 months of that and some lecturers used it but we are still finding our feet. I do not believe in doing it through 'general method' or as part of 'teaching practice', so we go for building up staff knowledge and willingness to use it in the separate methods. I report on my own method - History - the largest of all the groups (97 out of 220); especially with the strike I have no hope of reaching the target of 2 sessions each: in fact will be lucky to get 1 session each."

(S/991) Afrikaans:

"We have not had MT for very long in our university. Initially eleven skills were identified. At the moment we are seriously thinking of regrouping the skills in order to make them less. Our MT is subject related and each lecturer is responsible for introducing the specific skill by way of a lecture and then the students do it practically. We are also thinking of revising this by way of one general lecture and then splitting up into the different subject method groups."

(S/992) English:

"I found this year that my lectures on how a language lesson should be conducted were misinterpreted and teacher centred lessons resulted. Next year ALL lectures will be replaced

by demonstration lessons.

I think it would be ideal for a whole Education faculty to participate in a closely knit circuit around the development of each skill, perhaps even the whole University could be informed of the skill of the week, e.g. Skill for the Week: Introduction

Didactics: Princp of Tot and how does this influence the necessity of an introduction.

Comparative and Historical: The lecturers could demonstrate the impact of an introduction in their own lectures.

Empirical: The importance of the introduction in successful learning.

Methods: Concentrate on suitable introductions to their lesson – evaluate the lecturers' performances in Didactics, Historical, etc."

(S/993) Xhosa:

"Need for some skills to be combined so that 2 or 3 skills need emphasising. Need for some helper to be present at every venue to operate the machines. Not all the students in my group get the chance to practice every skill. Using peers as pupils has obvious problems."

(S/994) History:

"The use of peers is a problem – teaching becomes artificial. We have large method groups e.g. Xhosa method group of about 45 students, not every student gets a chance of using the video equipment. At the same time we try to improvise as much as we can, even without machinery sometimes."

APPENDIX 2.5

Comments on Attitude Questionnaire

Item:

1.1 (11) + split screen. C/621

1.3 (5) But repair and development not included in options. Technical staff required to solve needs of MT. C/722

2.1 (2) for set induction.

(10) for questioning. C/621

2.2 (2) for set induction only. C/621

(3) Guidance is available. 1 tutor is available for lesson planning. C/722

2.3 (2) for set induction only. C/621

(1) Programme cumulative in itself and feeds from other courses. C/722

2.4 (3) This reflects what there is time to do rather than hypothetical and unrealistic views. U/034

(3) for questioning. C/621

(NA) The programme derives from language teaching and is planned to relate to it. MT is a testbed for language teaching methodology and provides experience to students as learners of foreign languages. It is not a generalised 'teaching skills' programme. C/722

2.5 (12) This does not reflect my view properly since it does not take account of peer group MT. U/024

3.2 (?) Peer group can provide f/b and supervision but tutor presence is needed. U/024

3.4 (2) If this means 'marked' assessment. C/713

4 (?) No experience. Not possible with us.

(?) I have no experience in MT relating to section 4. U/292

(?) Reteach is not a feature. The model is a cognitive one. 'Replan' is built in - reteach would harm confidence. C/722

4.3 (11) All depends on the particular student and his/her 'performances' in the first microteaching situation - on the whole. C/713

5.1 (12) Difficult to answer - I feel the teaching skill MT modifies is the skill of evaluating your own teaching. This is an advanced skill so I don't see MT as an introduction to teaching. C/581

5.2 (1) Again I don't see MT as a behaviour modification technique as the question seems to imply. C/581

6.1 (11) But you don't allow for this perception being independent of MT. U/215

(11) Very difficult. Student reactions varied. Teaching anyway is more than successfully carrying out skills. C/713

6.2 (11) "simulation of" for "substitute for". C/621

(2) Again some students fall into all categories!! C/713

(2) For some students - for others (fewer in number) I could have marked the other end!! C/581

(NA) There are 3 sessions. The questions do not apply. C/722

6.3 (5-6) Difficult to quantify. C/713

6.4 (11) If the tutor is smart! C/621

(2) Some do - whilst doing the microteaching. Unfair question - first 3 categories could mean 'creativity and originality' whilst microteaching whereas your last category brings in 'approach to teaching' (as a whole). C/713

(11) Here I'd say that it is possible to analyse one's attempt to teach creatively. C/581

7.1 (8) "possible" for 'inevitable'. C/713

7.4 (7) Shows up certain idiosyncratic habits. U/211

(8) It might be for some! C/713

(11) But model is cognitive and encourages freewill. 'The particular model' is the student's own. C/722

8.1 (8) Vague, if the tutor allows it to remain vague. C/601

(12) and "some" psychological theory. C/621

(12) Forces one to spell out what implications of psychological theory are for teachers. C/581

(1) Naïve assumptions about two of a range of autonomous disciplines (also 8.2). C/722

9.1 (5) ...but "certain skills can be acquired if student has correct attitude". U/211

9.2 (8) Audio recording no good because we deal with P.E. - i.e. need visual. C/581

9.4 (12) It is better...for MT, "since it is immoral to use children as 'fodder' - teaching them isolated bits of information". U/024

(11) It is better...for MT, "for prepractice MT". Criteria are not finance, pupils change nature of experience. C/722

9.5 (3) Putting this word (i.e. 'effective') in here but not elsewhere makes the scale non-linear. U/024

(7) Main problem is a) lack of equipment and b) shortage of time. C/711

General: Despite some doubts as to the genuineness of some responses I hope this is useful. I am not prepared to reveal name or institution since to be asked to do so is an impertinence. The postmark should reveal the city. C/601

We live in a pluralist society - in many ways. The response to this questionnaire should reflect the pluralist, varied response to microteaching across any group of tutor/students. Some will react in one way - some in another - some in another. One response between 1-12 cannot accurately reflect even MY point of view - my point of view must take note of vanity! C/713

APPENDIX 3

3.1 Table of Chi-square values for United Kingdom responses: for
crosstabulation of Attitude items against Organisation items.

P.290

3.2 Factorial Analysis of Attitude Questionnaire items for different
types of institution.

P.294

APPENDIX 3.1

Chi-square levels of significance for United Kingdom responses

	X11	X12	X13	X21	X22	X23	X24	X25	X31	X32
UPC	0986	8162	7121	3057	9731	0712	4502	2480	3231	0014*
+ SA	0000	0605*	2468	0569*	1230	0568	0004	5967	3580	1730
SUBJGP	0004*	1541	6575	6116	9026	2837	1191	2555	0503*	0052*
A4	4822	1323	8441	0558*	3336	3032	4769	2842	9256	9442
A5A	0007*	3185	1571	3397	1749	1010	0314	9213	0959*	8846
A5B	1449	0016*	0000	3982	2931	5193	5036	4433	8902	2206
A7B	6108	9082	1834	8641	3424	3313	4985	7730	7037	9762
A8	6937	1418	1699	3417	8025	0267	8573	0364*	8773	3199
A9A	5249	8991	8542	9439	5819	0556*	6325	0029*	1340	1152
A9B	6786	4593	4133	3748	3219	4479	6902	7339	5725	9962
A10	1965	4404	1933	9177	0375	3236	8719	5660	2361	7948
A11	0252*	1640	2677	0094*	6302	0320	0750	0882	0034*	8024
A12	0426*	0121*	0187	4046	8055	1859	2547	2711	0939*	3644
A13	2312	7617	5213	8895	1320	0269	0851*	3576	9031	4092
A14	1304	9655	5947	7806	5906	9586	6295	8838	7038	1129
A15A	0984*	6365	4918	3343	2938	0599*	2708	2197	1109	0098*
A15B	6698	3813	7625	2911	8068	3199	3235	1722	1890	9966
A15C	5793	8244	4578	1860	8247	6768	7591	5577	2229	0019*
A16	3485	4773	0050	1509	5876	5007	9019	9189	4175	9227
A17	3274	0451*	9161	3032	1257	2375	0010	5381	2827	7146
A18	0676*	6887	4715	6448	5819	3171	5614	3174	3448	0925*
A19	9251	1405	5934	4785	3715	8334	8675	0284*	2024	5054
A20	0535*	0000*	0020*	3077	2595	8666	3359	6898	1853	0563*
A21	0007	2013	1052	7424	1486	0356	0008	4138	3463	5217
A22	4188	1809	7993	5062	7060	0526	1148	4665	1151	9323
A25	0000*	0001*	0010	3966	5731	3999	0668	8286	3989	8551
A26A	5338	0000*	0074	4863	0498	5510	0100	5933	3909	3484
A26B	0312*	0358*	0103	0308*	2806	4283	2248	2857	3897	0165*
A26C	1192	0000*	0576*	2187	9711	0488*	2055	4920	5734	2140
A27	5653	0000*	0034*	3240	2419	6881	5417	6207	2127	1268
A28B	1172	4753	1721	2420	3174	0276	1613	9151	4116	3924
A28C	2444	5609	3468	7150	4250	2504	0007	7025	1493	2027
A28D	0675*	1134	2047	7793	5816	6929	3925	5447	6757	4960
A28E	4701	7347	4204	5083	9510	5607	7214	5621	2078	7739
A29	5748	5373	3276	6649	8057	1322	1278	5960	8720	0997*
A30	5156	2764	9457	0338*	5785	8007	2532	2966	2225	3550
A31	3661	8179	5609	2143	5378	6963	7786	9199	4767	4459
A32A	9039	5784	4884	2695	1988	1992	5812	8168	3826	0589*
A32B	8236	4499	9158	3808	0275	2045	8879	8846	3358	2256
A33	4136	8385	4040	0262*	3388	0716*	2474	6310	8639	6110
A34	4705	0452*	3806	3360	9334	0690*	5229	7762	7345	6933
A35	4219	3761	0196*	3968	3004	0404*	9025	2519	1053	6059

Underlined values indicate those crosstabulations discussed in Chapter

* indicates more than 20% expected cell frequencies less than 5 for levels of significance less than 1%.

Chi-square levels of significance (continued)

	X33	X34	X41	X42	X43	X51	X52	X53	X61	X62
UPC	<u>0014*</u>	6321	3052	4076	3666	7336	4112	2794	2558	1279
+ SA	<u>0010*</u>	<u>0000*</u>	<u>0190</u>	<u>1382*</u>	<u>0222*</u>	<u>0079*</u>	<u>0017</u>	<u>2589</u>	<u>1651</u>	<u>0706*</u>
SUBJGP	4052	5774	7335	1610	5189	3258	2010	0929*	2863	2105
A4	6781	8861	9683	3738	<u>0074*</u>	3529	7130	3754	1479	5160
A5A	<u>0254*</u>	5757	<u>0395*</u>	2496	0648*	2222	0756*	0766*	8145	<u>0134*</u>
A5B	7211	3980	6034	7178	2804	3566	6496	8886	1327	9010
A7B	<u>0244*</u>	0767*	7635	1679	6891	1985	<u>0096*</u>	<u>0321*</u>	9021	9983
A8	8390	4071	<u>0330*</u>	7920	5605	5857	8556	<u>0499*</u>	7370	3536
A9A	<u>0017*</u>	5528	4134	5157	4003	2572	<u>0287*</u>	1724	2351	6439
A9B	<u>0391*</u>	<u>0343*</u>	9832	3528	6893	5922	2475	3376	5102	7698
A10	7682	9947	6576	3462	4820	7507	4349	1871	8375	7669
A11	<u>0402*</u>	<u>0805*</u>	2135	2767	<u>0208*</u>	7224	5490	<u>0266*</u>	0873*	<u>0256*</u>
A12	2286	4398	8885	8883	9656	3856	<u>0337*</u>	3757	4393	1117
A13	5536	9202	<u>0003*</u>	<u>0003*</u>	<u>0075*</u>	4279	1498	1035	5699	0708*
A14	2449	5506	<u>0488*</u>	<u>0096*</u>	7208	2669	9653	9341	9054	5668
A15A	1463	7485	8090	5901	1042	0910*	8855	4392	6548	9175
A15B	1177	4496	3095	3905	7734	<u>0331*</u>	<u>0578*</u>	9368	1940	9391
A15C	1466	6402	6281	3907	4040	4797	9138	3946	3856	9483
A16	9068	2943	<u>0018</u>	1445	7878	1338	4354	7155	5457	0917*
A17	<u>0009*</u>	7036	7111	1343	5065	1410	<u>0330*</u>	1130	2969	<u>0365*</u>
A18	7267	1167	8006	8410	7598	1606	6297	6556	4391	3647
A19	2875	1289	9075	8009	4775	4108	5277	3092	1254	2439
A20	4825	<u>0202*</u>	5971	1290	3737	<u>0013*</u>	<u>0312*</u>	2955	<u>0531*</u>	1685
A21	0696*	1808	<u>0029</u>	<u>0066*</u>	<u>0012*</u>	<u>0325*</u>	1714	<u>0159*</u>	4102	8827
A22	8311	6794	1636	<u>0485*</u>	2789	4295	1285	4282	4506	3201
A25	7260	3456	2860	<u>0402*</u>	<u>0213*</u>	5256	8093	5047	7254	2088
A26A	2591	4766	3522	<u>0382*</u>	5516	7795	7114	2149	2434	3202
A26B	8562	2455	7100	4725	2729	8864	8765	7097	2371	1107
A26C	8069	6376	5433	3784	7719	4926	3024	4371	1730	4849
A27	5555	5244	1401	<u>0344*</u>	4799	2579	5827	4882	3117	8398
A28P	3406	<u>0193</u>	<u>0850*</u>	3639	2112	4040	0614*	3757	6111	<u>0214*</u>
A28C	1180	7067	5181	4722	4112	6707	<u>0577*</u>	<u>0244*</u>	2635	<u>0403*</u>
A28D	8449	8616	5249	9760	7324	5231	8482	2092	4166	8331
A28E	9997	<u>0282</u>	8219	9692	5279	2807	<u>0458*</u>	3404	2389	<u>0005*</u>
A29	1087	<u>0000*</u>	4634	2384	5165	<u>0477*</u>	3186	7997	4339	2251
A30	2374	6711	2395	3011	4936	8048	5694	1628	<u>0534*</u>	7410
A31	8889	2375	5117	8422	0670*	3143	6985	2794	4081	7730
A32A	2254	1569	2221	7242	6166	2836	2580	1681	5631	1700
A32B	1357	<u>0173*</u>	0628*	4886	6780	6147	2525	6260	5433	<u>0363*</u>
A33	7999	6923	0711*	9661	7763	5702	3637	7929	8741	7471
A34	7515	7354	2920	8043	8055	8914	7453	8707	7436	7963
A35	2229	0630*	1896	<u>0521*</u>	6504	7554	9915	3436	6769	9445

Underlined values indicate those crosstabulations discussed in Chapter :

* indicates more than 20% expected cell frequencies less than 5 for levels of significance less than 1%.

Chi-square levels of significance (continued)

	X63	X64	X71	X72	X73	X74	X81	X82	X83
UPC	1896	3703	5246	<u>1544</u>	6684	1815	<u>0030*</u>	<u>0493*</u>	1002
+ SA	<u>0005*</u>	<u>0866*</u>	<u>6668</u>	<u>0946*</u>	<u>0665*</u>	<u>0178*</u>	<u>0001*</u>	<u>0000*</u>	<u>0283*</u>
SUBJGP	8771	<u>0440*</u>	5685	<u>0830*</u>	8227	6949	3807	2338	<u>0813*</u>
A4	3927	5136	2406	4250	2501	8308	8513	5134	4750
A5A	7709	5680	6794	3095	1831	3259	6794	8650	1967
A5B	4648	8856	4876	7385	8613	3883	6968	5798	6672
A7B	1093	2960	4394	<u>0680*</u>	<u>0320*</u>	2944	<u>0183*</u>	1213	3116
AB	4923	6555	3995	4830	3048	3419	7001	1951	1361
A9A	5635	8050	3342	2803	<u>0425*</u>	2207	2915	3388	<u>0733*</u>
A9B	<u>0307*</u>	3498	4963	6109	<u>0216*</u>	2148	1104	4157	<u>0958*</u>
A10	<u>9474</u>	7144	7032	1037	4633	5630	9213	1039	3061
A11	1089	3593	3680	<u>0001*</u>	1502	<u>0859*</u>	0960	8222	<u>0149*</u>
A12	4639	1898	7920	4676	2937	3885	1440	5383	4385
A13	1015	5599	3558	1767	<u>0501*</u>	6522	1082	<u>0006*</u>	6259
A14	9009	2352	1255	8125	3878	2536	<u>0938*</u>	2759	8910
A15A	5437	8482	6099	8073	3371	9058	6597	7439	6146
A15B	1281	4174	1502	7882	3767	1838	9222	4106	1819
A15C	6167	<u>0808*</u>	2877	4244	6993	2967	7311	8772	<u>0226*</u>
A16	7960	5034	5589	5493	6472	8834	4243	3358	4418
A17	3931	3021	1836	4778	<u>0650*</u>	3512	1306	4658	1257
A18	2820	6314	1875	2140	2694	9040	4059	4460	3623
A19	5686	6660	3047	2181	2673	3571	5812	2989	7812
A20	6048	6763	9378	5659	6941	<u>0525*</u>	6339	7046	<u>0111*</u>
A21	2817	2179	2854	<u>0427*</u>	1968	1243	8580	<u>0765*</u>	2738
A22	<u>0312*</u>	9683	2123	3015	<u>0283*</u>	6464	1669	4308	4289
A25	9885	2115	1865	4090	1723	1239	5544	<u>0686*</u>	1138
A26A	8206	6078	5249	4103	3151	8101	<u>0505*</u>	<u>0580*</u>	4662
A26B	4283	9318	6936	1226	5507	2145	3610	5217	6125
A26C	3951	7671	2385	2572	4155	4864	3554	6616	2811
A27	2339	3514	6595	8099	5816	9123	3785	<u>0057*</u>	3942
A28B	<u>0709*</u>	3279	2441	<u>0098*</u>	6984	6210	5085	3333	7362
A28C	1276	5487	4036	3097	2315	1334	7230	1493	7207
A28D	8263	6963	6565	9093	6340	8374	4919	<u>0841*</u>	3127
A28E	5400	1345	9533	<u>0466*</u>	<u>0067*</u>	6899	8497	6621	7538
A29	7626	7813	5531	8912	2821	9418	5419	7651	<u>0426*</u>
A30	6411	5814	3340	5711	1578	6116	2563	9293	4633
A31	4205	5555	8119	1541	5494	5138	<u>0085*</u>	<u>0545*</u>	7196
A32A	4958	3269	2324	7282	4139	5498	6422	9307	<u>0118*</u>
A32B	7994	1373	2837	5132	2056	3802	6640	9759	1183
A33	5572	<u>0437*</u>	6356	9366	2517	<u>0546*</u>	5197	2747	2155
A34	5077	2090	6097	9106	6232	6614	8327	7284	1118
A35	<u>0921*</u>	6906	5851	6018	6169	3497	3446	<u>0659*</u>	4187

Underlined values indicate those crosstabulations discussed in Chapter 5

* indicates more than 20% expected cell frequencies less than 5 for levels of significance less than 1%.

Chi-square levels of significance (continued)

	X91	X92	X93	X94	X95
UPC	<u>6914</u>	<u>2460</u>	<u>1072</u>	<u>3396</u>	<u>0925*</u>
+ SA	<u>0991*</u>	<u>0083*</u>	<u>2682</u>	<u>3026</u>	<u>0106*</u>
SUBJGP	<u>8344</u>	<u>0549*</u>	<u>6083</u>	<u>2097</u>	<u>2150</u>
A4	<u>2005</u>	<u>7453</u>	<u>6847</u>	<u>4559</u>	<u>5673</u>
A5A	<u>3646</u>	<u>2159</u>	<u>4463</u>	<u>4679</u>	<u>8381</u>
A5B	<u>6672</u>	<u>0003</u>	<u>1310</u>	<u>2726</u>	<u>2377</u>
A7B	<u>0939</u>	<u>1183</u>	<u>3608</u>	<u>3160</u>	<u>0508*</u>
A8	<u>5325</u>	<u>3022</u>	<u>6630</u>	<u>4834</u>	<u>3071</u>
A9A	<u>6663</u>	<u>9793</u>	<u>7917</u>	<u>2850</u>	<u>8505</u>
A9B	<u>7636</u>	<u>1345</u>	<u>6635</u>	<u>2895</u>	<u>1450</u>
A10	<u>3684</u>	<u>3419</u>	<u>1910</u>	<u>0934*</u>	<u>1714</u>
A11	<u>0004*</u>	<u>0056*</u>	<u>8531</u>	<u>0004</u>	<u>0001*</u>
A12	<u>0220*</u>	<u>3029</u>	<u>6344</u>	<u>1529</u>	<u>2721</u>
A13	<u>0262*</u>	<u>5174</u>	<u>4898</u>	<u>0000*</u>	<u>1024</u>
A14	<u>0106*</u>	<u>0515*</u>	<u>4101</u>	<u>2135</u>	<u>4053</u>
A15A	<u>0322*</u>	<u>2328</u>	<u>7977</u>	<u>1649</u>	<u>2559</u>
A15B	<u>9603</u>	<u>4889</u>	<u>9951</u>	<u>0233*</u>	<u>9820</u>
A15C	<u>8355</u>	<u>7762</u>	<u>1797</u>	<u>5536</u>	<u>5138</u>
A16	<u>3560</u>	<u>4800</u>	<u>1685</u>	<u>1002*</u>	<u>5565</u>
A17	<u>2958</u>	<u>0729</u>	<u>8236</u>	<u>0494*</u>	<u>4203</u>
A18	<u>1194</u>	<u>7441</u>	<u>3349</u>	<u>2127</u>	<u>7895</u>
A19	<u>3269</u>	<u>1966</u>	<u>1869</u>	<u>1036</u>	<u>9441</u>
A20	<u>0561*</u>	<u>0000</u>	<u>2889</u>	<u>9782</u>	<u>7254</u>
A21	<u>4154</u>	<u>0643</u>	<u>6494</u>	<u>0668*</u>	<u>0164*</u>
A22	<u>5416</u>	<u>5700</u>	<u>3054</u>	<u>0000*</u>	<u>4893</u>
A25	<u>8637</u>	<u>0000</u>	<u>2040</u>	<u>4639</u>	<u>6782</u>
A26A	<u>5516</u>	<u>0157</u>	<u>2457</u>	<u>0300*</u>	<u>0152*</u>
A26B	<u>1083</u>	<u>2375</u>	<u>6134</u>	<u>0239*</u>	<u>0220*</u>
A26C	<u>0353*</u>	<u>0000*</u>	<u>2062</u>	<u>9934</u>	<u>5563</u>
A27	<u>4048</u>	<u>0000*</u>	<u>8612</u>	<u>1126</u>	<u>5268</u>
A28B	<u>1460</u>	<u>6062</u>	<u>3164</u>	<u>0002*</u>	<u>3291</u>
A28C	<u>6463</u>	<u>7243</u>	<u>0510*</u>	<u>0041*</u>	<u>3993</u>
A28D	<u>0917*</u>	<u>0154*</u>	<u>9125</u>	<u>5582</u>	<u>8170</u>
A28E	<u>2420</u>	<u>8643</u>	<u>3707</u>	<u>6190</u>	<u>3467</u>
A29	<u>6558</u>	<u>2018</u>	<u>0352*</u>	<u>4048</u>	<u>7707</u>
A30	<u>4633</u>	<u>0229*</u>	<u>5258</u>	<u>8425</u>	<u>2661</u>
A31	<u>9761</u>	<u>5450</u>	<u>3544</u>	<u>8772</u>	<u>4086</u>
A32A	<u>2643</u>	<u>9735</u>	<u>5884</u>	<u>3776</u>	<u>5309</u>
A32B	<u>4182</u>	<u>7027</u>	<u>8884</u>	<u>1830</u>	<u>0677*</u>
A33	<u>1643</u>	<u>4264</u>	<u>8159</u>	<u>0870*</u>	<u>5514</u>
A34	<u>1074</u>	<u>0097</u>	<u>2910</u>	<u>0590*</u>	<u>8265</u>
A35	<u>5763</u>	<u>0742*</u>	<u>3203</u>	<u>1802</u>	<u>0203*</u>

Underlined values indicate those crosstabulations discussed in Chapter :

* indicates more than 20% expected cell frequencies less than 5 for levels of significance less than 1%.

APPENDIX 3.2

COMPARISON OF FACTORS FOR TYPES OF INSTITUTION

Factor analyses of the results for the Attitude Questionnaire were carried out using sub-programme FACTOR in SPSS for each of the four types of institution viz. U.K. universities, U.K. polytechnics, U.K. colleges and R.S.A. universities.

The initial analysis was carried out using Principal Factor with iterations and identified approximately twelve factors with eigenvalues greater than 1,00 (see Table 1).

Table 1

Eigenvalues and percentage of variance for each factor

Factor	- - - - United Kingdom - - - -						South African Universities	
	Universities		Polytechnics		Colleges		Eigen value	Cum %
	Eigen value	Cum %	Eigen value	Cum %	Eigen value	Cum %	Eigen value	Cum %
I	5,618	16,5	7,096	20,9	4,608	13,6	7,066	20,8
II	3,835	27,8	5,157	36,0	3,694	24,4	3,488	31,0
III	2,404	34,9	2,846	44,4	2,827	32,7	2,743	39,1
IV	2,291	41,6	2,539	51,9	2,408	39,8	2,398	46,2
V	1,909	47,2	2,380	58,9	2,210	46,3	2,007	52,1
VI	1,695	52,2	1,933	64,6	1,847	51,7	1,647	56,9
VII	1,506	56,6	1,698	69,6	1,771	57,0	1,520	61,4
VIII	1,316	60,5	1,463	73,9	1,606	61,7	1,494	65,8
IX	1,247	64,2	1,276	77,6	1,503	66,1	1,402	69,9
X	1,190	67,7	1,222	81,2	1,336	70,0	1,266	73,6
XI	1,042	70,7	1,157	84,6	1,232	73,7	1,076	76,8
XII					1,134	77,0		
XIII					1,006	79,9		

Using the Scree Test advocated by Cattell (Kim & Mueller 1978b) it appeared that three factors could be extracted for comparison purposes and the 'factorial litter' of those factors of a similar size ignored, particularly as they contained the majority of items. Varimax rotation was used in order to maximise or minimise loads of a moderate size to

clarify the pattern of loading on the three factors (see Tables 2a,b,c). Following the procedure outlined by Harman (Cooley & Lohnes 1967) for approximating the standard error of the factor loadings which shows that loadings greater than ,29 are significant at the ,05 level, only factor loadings of ,29 and greater are reported.

The three factors for the United Kingdom institutions show some interesting differences. Although they have the same relative importance as shown by their eigenvalues and percentage of variance they are very different in their compositions. Factor I for the universities consists of the three 'reteach' items, the three items concerned with immediate objectives, the skills and behavioural approaches, the relation to psychology and sociology and preparation for microteaching, with use of handouts and observation schedules. For the polytechnics the use of 'reteach' is less important although some importance is attached to its value, the dominant items are those concerned with the philosophical factors, particularly the skills and behavioural approaches, the relation to other courses especially psychology and with the effects of microteaching on the students, including the influence of the peer group and the use of observation schedules. Factor I for the colleges is less well structured and consists of the items concerned with the need for physical and technical facilities but preparation, use of handouts, use of 'reteach', relation to psychology, immediate objectives and the behavioural aspects of microteaching. The latter differs by the inclusion of negative economic factors concerned with the need for special physical facilities and adequate time for preparation and planning and a negative

factor in relation to the cosmetic effect of microteaching.

Table 2a

	Factor I Matrices			South African Universities
	Universities	Polytechnics	Colleges	
Eigenval	4,984	6,663	4,026	6,450
Variance	49,4%	49,4%	43,5%	56,8%
Item 1.1			,637	
1.2			,466	
1.3			,766	
2.1				
2.2				
2.3	,460		,448	,326
2.4	,445		,467	,457
2.5				
3.1				
3.2		,340		
3.3	,543	,502		,644
3.4				,574
4.1	,862		,408	,577
4.2	,793		,483	,513
4.3	,765	,499		,752
5.1	,395		,381	
5.2	,390	,349	,332	,301
5.3	,354	,732		,787
6.1		,819		,309
6.2		,305		,281
6.3		,612		,619
6.4				,347
7.1		,703	-,406	,404
7.2		,527		,427
7.3	,363	,871		,629
7.4	,294	,842	,457	,641
8.1	,340	,773	,406	,694
8.2	,343	,488		,544
8.3		,402		,473
9.1				
9.2			-,485	
9.3				
9.4				
9.5			-,436	

Hence, all share some preparation aspects but, whereas the colleges are more affected by the economic factors of physical and technical resources, the polytechnics are more concerned with the academic and professional use that is made of microteaching and, as a result, its influence on students and the universities attach more importance to the use of 'reteach'.

Factor I for the South African universities appears to be a mixture of those of the United Kingdom universities and polytechnics, with the addition of 3.4 indicating that a much greater importance is attached to the assessment of microteaching within the training course.

Table 2b

	<u>Factor II Matrices</u>			South African Universities
	Universities	Polytechnics	Colleges	
Eigenval	3,207	4,582	3,043	2,818
Variance	31,8%	34,0%	32,8%	24,6%
Item 1.1		-,365		
1.2		-,706		
1.3		-,449		
2.1				
2.2				-,549
2.3				-,433
2.4				
2.5				
3.1				
3.2				-,288
3.3			,557	
3.4		,347		
4.1			,372	
4.2			,399	
4.3			,416	
5.1				-,370
5.2				-,494
5.3	,430		,522	
6.1	,449		,514	
6.2	,471	,616		-,443
6.3	,428			-,407
6.4	,380			-,285
7.1	,410			
7.2	,477	,513		
7.3	,459		,809	
7.4			,400	
8.1	,404		,609	
8.2	,355			
8.3	,438		,292	
9.1	,487	,615		-,529
9.2		,561		
9.3	-,402	,390		-,497
9.4		,486		-,444
9.5	,562	,798		-,572

Factor II for the United Kingdom universities is more like Factor I for the polytechnics, although the corresponding loadings are not as high. Similarly Factor II

for the polytechnics is more concerned with the economic aspects and the need for physical and technical facilities, as was Factor I for the colleges, only much better defined. The colleges second factor consists of the use of 'reteach', together with the skills and, to a lesser extent, the behavioural approaches.

For South African universities, Factor II is dominated by the economic items 9.1 and 9.3 to 9.5, which are related to the effects that microteaching has on students, particularly its relevance to classroom teaching and its effect on their confidence. The preparation, planning, use of peer groups and the behavioural modification objectives appear as negative aspects of this factor.

Factor III for the United Kingdom universities consists of the economic aspects and the need for technical and physical facilities, whereas preparation is of more significance for the polytechnics. The colleges' factor appears to be mainly influenced negatively by the use of 'reteach' but includes items concerned with relevance to students and the behavioural aspects of microteaching.

The South African universities factor consists of those items concerned with the physical and technical facilities, with the provision of physical facilities contributing a negative aspect. The need for formal assessment again makes a contribution, as does the relative needs of students and pupils.

Table 2c

Factor III Matrices				
- - - - United Kingdom - - - -				
	Universities	Polytechnics	Colleges	South African Universities
Eigenval	1,897	2,237	2,195	2,130
Variance	18,8%	16,6%	23,7%	18,6%
Item 1.1	,706	,298		,698
1.2	,348			,482
1.3	,713			,618
2.1		,420	-,320	
2.2	,312	,527		
2.3		,614		
2.4		,461		
2.5			-,314	,464
3.1		,470		
3.2				
3.3				
3.4				,299
4.1		,622	-,663	
4.2		,505	-,307	,396
4.3			-,340	
5.1		,359		
5.2			,431	
5.3		,319		
6.1				
6.2			,330	
6.3		-,293	,574	
6.4		-,540		
7.1				
7.2	-,419		,377	
7.3				
7.4			,471	
8.1				
8.2	,334			
8.3				
9.1		-,368	,436	
9.2	-,645			-,660
9.3	-,484			
9.4	-,311	-,453	,433	
9.5	-,342			

The overall impression of the factors from the different types of institutions in the United Kingdom is that the polytechnics appear to show more definite and more well defined attitudes to the use of microteaching. It is also worth noting that Item 2.5 Needs of students v needs of pupils and Item 3.4 Assessment contribute the least to the factors and that 2.1 Content of lessons and 2.2 Planning of

lessons are also of little importance.

The factors identified from South African universities also exclude 2.1 concerned with the identification of content. They appear well defined as did those for the polytechnics but are more concerned with the assessment aspects involved in microteaching.

BIBLIOGRAPHY

Alexander, R.J. & Whittaker, J., (1980) Developments in PGCE courses, Guildford, Surrey, SRHS.

Alexander, R.J., Craft, M. & Lynch, J. (eds), (1984) Change in teacher education: context and provision since Robbins, London, Holt, Rinehart & Winston.

Allen, D.W. & Clark, R.J., (1967) "Microteaching: its rationale." The High School Journal, 51, 75-79.

Allen, D.W., (1968) Microteaching: a description, Stanford University, California.

Allen, D.W. & Ryan, K.A., (1969) Microteaching, Reading Mass., Addison-Wesley.

ACSET, (1984) Criteria for the approval of initial teacher training courses: note by the Secretariat and selection of students, London, DES mimeograph.

Ashton, P., (1981) An account of the DES/Open University IT-INSET Project, 1978-81, University of Leicester School of Education, mimeograph.

Aspy, D.N., (1972) "An investigation into the relationship between teachers' factual knowledge of learning theory and their classroom performance." Journal of Teacher Education, 23, 1, 21-24.

ATCDE, (1972) A statement by the Executive Committee of the Association of Teachers in Colleges and Departments of Education on Teacher Education and Training, London, ATCDE.

Bandura, A. (1969) Principles of behaviour modification, London, Holt, Rinehart & Winston.

Bandura, A. (1971) Social Learning Theory, New York, General Learning Press.

Beach, D.M., (1980) "Utilizing Educational Technology in teacher training." in Winterburn, R. & Evans, L. (eds) Aspects of Educational technology Volume 14 Educational Technology to the Year 2000, London, Kegan Page.

Beattie, N., (1972) "Microteaching - some questions." Edge Hill Forum on Teacher Education, 1, 1 80-88.

Behr, A.L. & MacMillan, R.G., (1971) Education in South Africa, Pretoria, Van Schaik.

Behr, A.L., (1984) New perspectives in South African education, Durban, Butterworths.

Berliner, D.C., (1969) Microteaching and the technical skills approach to teacher training, Technical Report No. 8, SCRDT, School of Education, Stanford University.

Bierschenk, B., (1972) Self-confrontation via CCTV in teacher training: results, implications & recommendations, University of Malmo, Sweden.

Bierschenk, B., (1974) "Perceptual, evaluative and behavioural changes through externally mediated self-confrontation." Didakometry, 41, School of Education, Malmo, Sweden.

Bijnen, E.J., (1973) Cluster Analysis: survey and evaluation of techniques, Tilburg University Press.

Bjerstedt, A., (1967) "CCTV and video-recordings as 'Observation Amplifiers' in Teacher training." Educational Television International, 1 300-312.

- Bloom, J.M., (1969) "Videotape and the vitalization of teaching." Journal of Teacher Education, 20 311-315.
- Bolster, A.S., (1982) "Towards a more effective model of research on teaching." Harvard Education Review, 53 294-308.
- Borg, W.R., Kelley, M.L., Langer, P. & Gall, M., (1970a) The minicourse: a microteaching approach to teacher education, Beverley Hills, Macmillan Educational Services.
- Borg, W.R., Langer, P. & Kelley, M., (1970b) "The minicourse: a new tool for the education of teachers." Education, Feb-March 1-7.
- British Council, (1982) Higher education in the United Kingdom 1982-84, London, Longmans.
- Brown, G.A., (1975a) "Microteaching: research and developments." in Chanan, G. & Delmont, S. (eds) Frontiers of classroom research, Slough, NFER.
- Brown, G.A., (1975b) "Case studies of teacher preparation." British Journal of Teacher Education, 1(1) 71-85.
- Brown, G.A., (1975c) Microteaching: a programme of teaching skills, London, Methuen.
- Brown, G.A., (1976) "Using microteaching to train new lecturers." Educational Media International, 3 12-17.
- Bruner, J.S., (1966) Towards a theory of instruction, Harvard University Press.
- Brusling, C., (1974) Microteaching - a concept in development, Stockholm, Almqvist & Wiksell International.
- Bush, R.N., (1956) "Microteaching: controlled practice in the training of teachers." Communication, 48 201-207.
- Calitz, L.P., (1982) Micro-onderwys in die institutpraktikum, Potchefstroomse Universiteit vir Christelike Hoer Onderwys.
- Calitz, L.P., Westhuizen, P.C.V.D. & Meerkotter, D.A., (1984) Onderwyskunde: werkboek vir groepklasse, Potchefstroomse Universiteit vir Christelike Hoer Onderwys.
- Campbell-Stewart, W.A., (1950) Philosophy, psychology and sociology in the training of teachers, Ledbury, Herefordshire, Le Play House.
- Cattell, R.B., (1973) Factor analysis: an introduction and manual for the psychologist & social scientist, Westport Connecticut, Greenwood.
- Chanan, G. (Ed), (1973) Towards a science of teaching, New York, Greenwood.
- CHE, (1974) Criteria for the evaluation of South African qualifications for employment in education, Pretoria.
- Claus, K.E., (1969) Effects of modeling and feedback treatments on the development of teachers' questioning skills, Technical Report No. 6, SCRDT, School of Education, Stanford University.
- Clift, J.C., Batten, H., Burke, G. & Malley, J., (1976) "Structure of the skill acquisition phase of a microteaching programme." British Journal of Educational Psychology 46, 2, 190-197.
- CNAA, (1984a) Notes of guidance for the postgraduate certificate in education, CNAA mimeograph.
- CNAA, (1984b) Perspectives on postgraduate initial training: the CNAA validated PGCE, London, CNAA.
- Collier, K.G., (1959) "The criteria for assessment of practical teaching." Education for

Teaching, 48, 36-40.

Coltham, J., (1966) "An experiment in school practice." Education for teaching, 69 71-76.

Cooley, W.W. & Lohnes, P.R., (1962) Multivariate procedures for the behavioral sciences, London, Wiley.

Cooper, J.M., (1967) "Developing specific skills through microteaching." High School Journal, 51 3085.

Cooper, J.M. & Allen, D.W., (1969) Microteaching: History and present status, University of Massachusetts. Mimeo.

Cooper, J.M., (1980) "Microteaching: forerunner to competency-based teacher education." British Journal of Teacher Education, 6(2) 139-146.

Copeland, W.D., (1981) "Clinical experiences in the education of teachers." Journal of Education for Teaching, 7(1) 3-16.

Cortis, G., (1979) "An evaluation of school-based training within a PGCE course." British Journal of Teacher Education, 5(2) 165-171.

Cotter, D.R., Evans, J.J. & Tseng, M.S., (1978) "Relating skill acquisition to science classroom teaching behaviour." Journal of Research in Science Teaching, 15, 3 187-195.

Crawley, F.S. & Krockover, G.H., (1979) "Immediate and delayed effects of training pre-service secondary science teachers to ask questions of varying cognitive levels." Journal of Research in Science Teaching, 16(3) 243-248.

Davis, R. (1970) "The effectiveness of MT and videotapes in training prospective elementary teachers." DAI, 20, 4303A.

Degenaar, J.P., (1982) "Aspects of practical work as a component of training in subject didactics." in Degenaar, J.P. & McFarlane, L.R., Training in subject didactics, Pretoria, UNISA.

Degenaar, J.P. & McFarlane, L.R., (1982) Training in subject didactics, Papers read at Subject Didactics Symposium at UNISA October 1982.

Dent, H.C., (1977) The training of teachers in England and Wales, London, Hodder & Stoughton.

DES, (1983) Teaching Quality, London, HMSO Cmd 8836.

DES, (1984a) Teaching in schools: the content of initial training, London, Department of Education & Science.

DES, (1984b) Initial teacher training: approval of courses and annex on criteria, Draft circular from the Secretaries of State for Education and Science and for Wales.

DES, (1984c) Personal communication, London, Department of Education & Science.

Durham, M. & Garner, R., (1985) "DES to fund investigation into staff assessment." Times Educational Supplement, No. 3576, 11/1/85 P.1.

Eagle, M.R., (1978) "Group teaching practice in the training of Mathematics teachers." Mathematical Education for Teaching, 3(3) 16-21.

Emmett, R., (1965) "School practice reappraisal." Times Educational Supplement, 13/8/1965 266.

Esquivel, J.M., Lashier, W.S. & Smith, W.S., (1978) "Effect of feedback on questioning of preservice teachers in SCIS microteaching." Science Education, 62(2) 209-214.

- Everitt, B., (1980) Cluster Analysis, New York, Wiley.
- Festinger, L., (1957) A theory of cognitive dissonance, Stanford, University Press.
- Flanders, N.A., (1970) Analyzing teaching behavior, Reading Mass., Addison Wesley.
- Fortune, J.C., Cooper, J.M. & Allen, D.W., (1967) "The Stanford Summer Microteaching Clinic, 1965." Journal of Teacher Education, 18, 384-393.
- Foster, J.K., Heys, T.A. & Harvey, J.M., (1973) "Microteaching: a review & a study of the effect of microteaching on teaching effectiveness as measured by pupil achievement." Forum of Education, 33(2) 100-141.
- Fuller, F.F. & Manning, B.B., (1973) "Self confrontation reviewed: a conceptualization for video playback in teacher education." Review of Educational Research, 43 467-578.
- Gage, N.L., (1963) "A method for improving teacher behaviour." Journal of Teacher Education, 14 261-266.
- Gage, N.L., (1966) "Paradigms for research on teaching." in Gage, N.L., (ed) Handbook of research on teaching, Chicago, Rand McNally 94-141.
- Gage, N.L., (1968) "An analytical approach to research on instructional methods." Phi Delta Kappan, 49(10) 601-606.
- Gage, N.L., (1972) Teacher effectiveness & teacher education: the search for a scientific basis, Palo Alto, Peoples' Books.
- Gage, N.L., (1978) The scientific basis of the art of teaching, Columbia University, Teachers College Press.
- Garfield, S.L., (1971) "Research on client variables in psychotherapy." in Bergin, A.E. & Garfield, S.L., (eds) Handbook of psychotherapy & behavior change: an empirical analysis, New York, John Wiley.
- Gericke, J.S., (1969) Report of the Commission of Inquiry into the training of white persons as teachers, Republic of South Africa, R.P. 29/1969.
- Goldthwaite, D.T., (1969) "A study of microteaching in the pre-service education of science teachers." DAI, 29, 3021A.
- Goodkind, T.B., (1968) An evaluation of the effectiveness of the microteaching technique in the training of elementary teachers, Paper presented at AERA Annual Meeting.
- Goodlad, J.I., (1965) "An analysis of professional laboratory experiences in the education of teachers." Journal of Teacher Education, 16, 263-270.
- Gordon, P. & Lawton, D., (1973) Curriculum change in the nineteenth and twentieth centuries, London, Hodder & Stoughton.
- Gregory, I.D., (1971) "Microteaching in a pre-service education course for graduates." British Journal of Educational Technology, 2(1) 24-32.
- Gregory, I.D. & White, D., (1977) "A small group approach for microteaching programmes." British Journal of Teacher Education, 3(3) 243-251.
- Gregory, I.D., (1980) "How good is your microteaching programme?" British Journal of Educational Technology, 11, 2, 123-126.
- Gregory, I.D., (1984) Personal communication, University of Witwatersrand.
- Griffiths, R., (1972) Some troublesome aspects of microteaching, Paper presented National

Education CCTV Association Annual Meeting, Stirling.

Griffiths, R., (1974) "The contribution of feedback to microteaching technique." APLST/NPLC Conference on Microteaching, Liverpool.

Greenewald, J., (1984) Microteaching, University of the Western Cape, Department of Didactics and Educational Practice.

GTTR, (1984) Graduate Teacher Training Registry, London.

Hadley, E. (ed), (1982) Teaching practice and the probationary year, London, Edward Arnold.

Hannam, C., (1982) Schemes, University of Bristol PGC Division, mimeograph.

Hargie, O.D.W., (1977) "The effectiveness of microteaching: a selective review." Educational Review 29(2) 87-97.

Hargie, O.D.W., Dickson, D.A. & Tittman, H.G., (1978a) "Mini-teaching: an extension of the microteaching format." British Journal of Teacher Education, 4(2) 113-118.

Hargie, O.D.W., Tittman, H.G. & Dickson, D.A., (1978b) "Personality correlates of students' attitudes to microteaching." Contemporary Education, 50(1) 39-44.

Hargie, O.D.W., Tittman, H.G. & Dickson, D.A., (1978c) Extraversion - introversion and student attitudes to microteaching: an empirical analysis, Report on research carried out at Ulster College.

Hargie, O.D.W. & Maidment, P., (1979) Microteaching in perspective, Ulster Polytechnic, Blackstaff Press.

Hargie, O.D.W., (1980) Social skills training: selected microtraining papers, Ulster Polytechnic.

Hargie, O.D.W., (1982) "Research paradigms & theoretical perspectives." British Journal of Educational Technology, 13(1) 76-82.

Hargreaves, D., (1984) Improving secondary schools, London, ILEA Learning Resources.

Hencke, D., (1978) Colleges in crisis, Harmondsworth, Penguin Books.

Highet, G., (1951) The art of teaching, London, Methuen.

Hill, P., (1984) Personal communication, Dunfermline College of Physical Education.

Hirst, P.H., (1980) "The PGCE course & the training of specialist teachers for secondary schools." British Journal of Teacher Education, 6(1) 3-20.

HMSO, (1972) Teacher education and training, The James Report, London, HMSO.

HMSO, (1978) Primary education in England, HMI Survey Report, London, HMSO.

HMSO, (1979) Aspects of secondary education in England, HMI Survey Report, London, HMSO.

HMSO, (1982) The new teacher in school, HMI Series: Matters for Discussion No. 15, London, HMSO.

Holzman, P.S., (1969) "On hearing & seeing oneself." Journal of Nervous & Mental Diseases, 148(3) 198-209.

Hough, J.B., Lohman, E.E. & Ober, R., (1969) "Shaping & predicting verbal teaching behaviour in a general methods course." Journal of Teacher education, 20 213-224.

House E.R. (ed), (1973) School evaluation, New York, McCutchan.

Hoyle, S. & Megarry, J. (eds), (1980) World yearbook of education, 1980: Professional development of teachers, New York, Nichols Publishing Co.

HSRC, (1981a) Provision of education in the RSA, The de Lange Report of the Main Committee, Pretoria, Human Sciences Research Council.

HSRC, (1981b) Recruitment and training of teachers, The de Lange Report of the Work Committee, Pretoria, Human Sciences Research Council.

Hung, J.H. & Rosenthal, T.L., (1981) "Therapeutic videotaped playback." in Fryear, J.L. & Freshman, B. (eds) Videotherapy in mental health, Springfield Illinois, Charles C. Thomas.

Hutchins, C.L., Dunning, B., Madsen, M. & Rainey, S.I. (1971) Minicourses work, Far West Laboratory for Educational Research & Development.

Illingworth, B.L., (1971) Self- and supervisor-feedback in microteaching by pre-service teachers, Ph.D. Dissertation, Purdue University.

Jacques, D. & Richardson, J. (eds), (1985) The future of Higher Education, Guildford, Surrey, SRHE & NFER-Nelson.

Johnson, W.D. & Knaupp, J.E., (1970) "Trainee role expectations of the microteaching supervisor." Journal of Teacher Education, 21(3) 396-401.

Kallenbach, W., (1969) Results of preservice field tests of minicourse I, Paper presented at AERA Annual Meeting.

Karmostaji, Z.G.A., (1980) Microteaching in teacher education, Unpublished M.Ed. thesis, University of Manchester.

Kearney, M.P.M., (1970) "Effectiveness of three microteaching feedback procedures." Unpublished doctoral thesis, Tech University, DAI, 31/A/5251.

Kasdorf, J. & Gustafson, K., (1973) "Research related to microtraining." in Ivey, A. & Authier, J., Microcounselling, Illinois, C.C.Thomas.

Kelsey, K.W., (1977) "Performance criteria and operant methods: an analysis of effects on cognitive and reinforcing behaviors of student teachers." Science Education, 61(2) 201-203.

Kim, J. & Mueller, C.W., (1973a) Introduction to factor analysis: what it is and how to do it, London, Sage.

Kim, J. & Mueller, C.W., (1973b) Factor analysis: statistical methods and practical issues, London, Sage.

Kirwin, N. & Shaw, M., (1966) "School and college co-operation on teaching practice." Education for Teaching, 70, 44-48.

Koran, J.J., (1969) "Supervision: an attempt to modify leadership." Educational Leadership, 26(7) 54-57.

Koran, J.J., Snow, R.E. & McDonald, F.J., (1971) "Teacher aptitude and observational learning of a teaching skill." Journal of Educational Psychology, 63, 3, 219-223.

Lawton, D., (1973) Social change, educational theory and curriculum planning, London, Hodder & Stoughton.

Lawton, D., (1975) Class, culture and the curriculum, London, Routledge & Kegan Paul.

Lawton, D., (1977) Education and social justice, London, Sage.

- Lawton, D. et al, (1978) Theory and practice of curriculum studies, London, Routledge & Kegan Paul.
- Lawton, D., (1980) The politics of the school curriculum, London, Routledge & Kegan Paul.
- Leith, G.O.M., (1982) "The influence of personality on learning to teach: effects and delayed effects of microteaching." Educational Review, 34(3) 195-204.
- Levinson-Rose, J. & Menges, R.J., (1981) "Improving college teaching: a critical review of research." Review of Educational Research, 51 403-434.
- Levis, D. et al, (1973) A progress report of the study to investigate the effects of alternative techniques to practice teaching on the development of teaching skills by student teachers, School of Education, Macquarie University, Sydney.
- Lomax, D.E. (ed), (1973) The education of teachers in Britain, London, John Wiley.
- Lomax, D.E. (ed), (1976) European perspectives in teacher education, London, John Wiley.
- Lowsley, J., (1984) Personal communication, Humberside College of Higher Education.
- Lumsdaine, A.A., (1966) "Instruments and media of instruction." in Gage, N.L. (ed) Handbook of research on teaching, Chicago, Rand McNally.
- Lynch, J., (1979) The reform of teacher education in the United Kingdom, Guildford, Surrey, Society for Research into Higher Education.
- Maarschalk, J., (1978) "The integration of interaction analysis within the context of teaching." Instructa 73.
- Maarschalk, J., (1984) "New trends and era in teacher education." South African Journal of Education, 4, 49-51.
- MacDonald, B. & Walker, R., (1976) Changing the curriculum, London, Open Books.
- MacLeod, G. & McIntyre, D., (1977) "Towards a model for microteaching." British Journal of Teacher Education, 3, 2, 111-120.
- Marcum, J.A. (ed) (1982) Education, race and social change in South Africa, Berkeley, University of California Press.
- McAleese, W.R., (1976) "A note on the freewheeling effect in non supervised microteaching students." Research Intelligence, 2(1) 20-22.
- McAleese, W.R. & Unwin, D., (1971) "A selective survey of microteaching." Programmed learning & Educational Technology, 8(1) 10-21.
- McDonald, F.J., (1973) "Behavior modification in teacher education." in Thoresen, C.E., (ed) Behavior modification in education, Chicago, NSSE Yearbook, University of Chicago Press.
- McDonald, F.J. & Allen, D.W., (1967) Training effects of feedback & modelling procedures on teaching performance, Stanford University, SCRDT report no. 3.
- McFarlane, L.R., (1982) "The central position of subject didactics as a link between the theory and practice of teacher training." in Degenaar, J.P. & McFarlane, L.R. Training in subject didactics, Pretoria, UNISA.
- McIntyre, D., (1971) Three approaches to microteaching: an experimental comparison, University of Stirling.
- McIntyre, D., MacLeod, G. & Griffiths, R., (eds) (1977) Investigations of microteaching,

London, Croom Helm.

McKnight, P.C., (1971) "Microteaching in teacher training: a review of research." Research in Education, 6 24-38.

McKnight, P.C., (1980) "Microteaching: development from 1963-73." British Journal of Teacher Education, 6 214-227.

McNamara, D.R. & Ross, A.M., (1982) The B.Ed. degree and its future, University of Lancaster, School of Education.

Madike, F.U., (1980) "Teacher classroom behaviours involved in microteaching and student achievement: a regression study." Journal of Educational Psychology, 72(2) 265-274.

Meier, J.H., (1969) "Rationale for & application of microtraining to improve teaching." Journal of Teacher Education, 19(2) 145-157.

Merrett, F. & Wheldall, K., (1982) "Does teaching student teachers about behaviour modification techniques improve their teaching performance in the classroom?" Journal of Education for Teaching, 3(1) 67-75.

Middlebrook, D., (1984) Personal communication, Chairman of PCET, Dean of Education, Trent Polytechnic.

Millett, J.D., (1984) Conflict in higher education: state government coordination versus institutional independence, London, Jossey-Bass.

Miltz, R.J., (1978) "Application of microteaching for teaching improvement in higher education." British Journal of Teacher Education, 4(2) 103-212.

Morrison, A. & McIntyre, D., (1969) Teachers & teaching, Harmondsworth, Penguin.

Myrick, R.D., (1969) "Effect of a model on verbal behaviour in counselling." Journal of Counselling Psychology, 16, 185-190.

Niblett, R., (1985) "Book review." Studies in Higher Education 10, 1, 100-102.

Nieman, E.J., (1984) "Organization and training student teachers in respect of subject didactics." in Theron, P.F. & Smit, H.V. Vakdidaktiek-Simposium, Bloemfontein, UOFS.

Oakley, J., (1984) Personal communication, La Sainte Union College, Southampton.

Oetting, E.R., (1976) "Evaluative research & orthodox science." Personnel & Guidance Journal, September 1976, 11-15.

Oliver, R.A.C., (1943) The training of teachers in universities, St. Hugh's School, University of London Press.

Olivero, J.L., (1964) The use of video recordings in teacher education, ERIC Microfiche.

Olivero, J.L., (1970) Microteaching: Medium for improving instruction, Columbus Ohio, Charles E. Merrill.

Patrick, H., Bernbaum, G. & Reid, K., (1982) The structure & process of initial teacher education within universities in England & Wales, University of Leicester School of Education.

Patrick, H., (1984) Personal Communication, University of Leicester.

Perlberg, A., (1976) "Microteaching: present and future directions." Education Media International, 2 13-21.

Perlberg, A., (1983a) Towards a theoretical conceptualization of instructional evaluation,

Paper presented to AERA Annual Meeting, Montreal.

Perlberg, A., (1983b) "When professors confront themselves: towards a theoretical conceptualization of Video Self Confrontation in higher education." Higher Education, 12 633-683.

Perrott, E., (1967) "A break with tradition, Stirling University's plan for the preparation of graduate teachers." Scottish Journal of Educational Studies, 1, 19-24.

Perrott, E., (1972) Course design and microteaching in the context of teacher training, University of Lancaster.

Perrott, E., (1974a) Self-instructional microteaching could transform traditional methods of teacher training, University of Lancaster, Press release.

Perrott, E., (1974b) "A study of self-instructional microteaching systems." Educational Development International, January 1974.

Perrott, E., (1977) Microteaching in higher education: research, development & practice, University of Surrey, SRHE.

Perrott, E., (1982) Effective teaching, London, Longmans.

Perrott, E. & Duthie, J.H., (1970) "Television as a feedback device: microteaching." Educational Television International, 4, 258-261.

Perrott, E., Applebee, A., Heap, B., Watson, E., (1976) "An investigation into teachers' reactions to a self instructional microteaching course." Journal of APLET 13(2) 25-36.

Peterson, T., (1973) "Microteaching in the preservice education of teachers: time for a re-examination." Journal of Educational Research, 57, 1, 34-37.

Phillipson, N., (ed) (1983) Universities, society and the future, Edinburgh, University Press.

Pocklington, K., (1983) School-based training in the PGCE: Progress report June 1983, University of Cambridge.

Pocklington, K., (1984) School-based training in the PGCE: Progress report January 1984, University of Cambridge.

Pocklington, K., (1985) School-based training in the PGCE: Progress report January 1985, University of Cambridge.

Popham, W.J., (1966) "Instructional videotapes in teacher education." AV Communication Review, 14, 371-376.

Price, G., (1964) "Crisis in school practice." Education for Teaching, 65, 36-40.

Reid, K.C., Patrick, H. & Bernbaum, G., (1981) "Future research issues in teacher education." Educational Review, 33(2) 143-149.

Rice, D.R., (1977) "The effect of question-asking instruction on pre-service elementary science teachers." Journal of Research in Science Teaching, 14(4) 353-359.

Richardson, C.A., Brule, H. & Snyder, H.E., (1953) The education of teachers in England, France and the USA, Paris, UNESCO.

Riley, J.P., (1973) "Effects of studying a question classification system on the cognitive level of pre-service teachers' questions." Science Education, 52(3) 333-338.

Rogers, C., (1969) Freedom to learn: a view of what education might become, Columbus (Ohio, C.E.Merrill.

Rogers, D.G., (1984) Personal communication, Leicester Polytechnic.

Sakamoto, T., (1981) "The effects of simplified microteaching for a pre-service teacher training." Educational Technology Research, 5(1,2) 1-11, RHE Abstracts 15(3) 1982.

Santiesteban, A.J. & Koran, J.J., (1977) "Acquisition of science teaching skills through psychological modelling and concomitant student learning." Journal of Research in Science Teaching, 14, 3, 199-207.

SATC, (1984) "Concern with teacher training: what does the SATC, as professional council for education, really want?" Newsletter to teacher trainers, South African Teachers Council, 2, August.

Schueler, H. & Gold, M.J., (1966) Video recordings of student teachers, Hunter College, New York.

Scott, B., (1984) Personal communication, South Glamorgan Institute of Education.

Scott, P., (1984) The crisis of the university, London, Croom Helm.

Shea, J.J., (1971) The relative effectiveness of student teaching versus a combination of student teaching and microteaching, Report no. A71-21, Teacher Education Division Publication Series, Far West Laboratory for Educational Research and Development.

Shepherd, N.J., (1984) Personal communication, University of Durban-Westville.

Skinner, B.F., (1953) Science and human behavior, New York, Macmillan.

Skinner, B.F., (1968) The technology of teaching, New York, Appleton Century Croft.

Smith, B.O., (1969) Teachers in the real world, Washington D.C., American Association of Colleges for Teacher Education.

Smith, B.O., (1971) Research in teacher education: a symposium, New York, Prentice-Hall.

Soobiah, C., (1981) Microteaching as a component in the training programme of prospective teachers, Unpublished D.Ed. thesis, UNISA.

Sorenson, G., (1967) "What is learned in practice teaching?" Journal of Teacher Education, 18(2) 173-178.

Spelman, B.J. & St. John-Brooks, C., (1973) "Microteaching and teacher education. A critical appraisal." Irish Journal of Teacher Education, 6, 73-93.

Stanton, H.E., (1973) "Self-concept change through a microteaching experience." British Journal of Teacher Education, 4(2) 119-123.

Stanhouse, L., (1975) An introduction to curriculum research and development, London, Heinemann.

Stewig, J.W., (1970) "What should college supervisors do?" Journal of Teacher Education, 21, 2, 251-257.

Stores, E. & Morris, S., (1972) Teaching practical problems & perspectives, London, Meth Len.

Stroh, T.F., (1968) "People can get hurt in confrontation." Training in Business and Industry, 5(12) 43-47.

Strongman, H.J., (1984) Personal communication, Bulmershe College of Education.

Swinnerdon-Dyer, P., (1983) "Development of a strategy for Higher Education into the 1990s."

Times Higher Education Supplement, 11/11/83.

Taylor, W., (1979) Research and reform in teacher education, Windsor, NFER.

Taylor, W., (1983) "The crisis of confidence in teacher education: an international perspective." Oxford Review of Education 9, 39-49.

Theron, P.F. & Smit, H.V. (eds), (1984) Vakdidaktiek-simposium, Papers read at the Subject Didactics Symposium at UOFS in November 1984.

Thomas, N., (1985) Improving primary schools, London, ILA Learning Resources.

Thompson, R.H., (1970) "Where teacher education programs fail." Journal of Teacher Education, 21, 2, 264-269.

Trott, A.J., (1977) An examination of some attitudinal, performance and awareness effects on first year trainee teachers following a short microteaching course, Unpublished M.Ed. thesis, University of Exeter.

Trott, A.J., (1983) "Classroom visiting." Education Today, 33(2) 56-65.

Trott, A.J. & Strongman, H., (1979) A handbook for countries developing microteaching, British Council, New Delhi.

Turney, C., (1970) "Microteaching - a promising innovation in teacher education." The Australian Journal of Education, 14(2) 125-141.

Turney, C., Owens, L.C., Hutton, N., Williams, G. & Cairns, L.G., (1975) Sydney micro skills, Sydney, Sydney University Press.

Turney, C., Clift, J.C., Dunkin, M.J. & Traill, R.D., (1979) Microteaching research, theory & practice, Sydney, Sydney University Press.

Turney, C., (1977) Innovation in teacher education, Sydney, Sydney University Press.

UCET, (1979) The PGCE course and the training of specialist teachers for secondary schools, London, UCET.

UCET, (1982) Postgraduate certificate in education courses for teachers in primary and middle schools, London, UCET.

van Loggerenberg, N.T., (1984) "Onderwysprestasie en onderwysopleiding." in Theron, P.F. & Smit, H.V. (eds) Vakdidaktiek-simposium, Bloemfontein, UOFS.

van Os, R.E.P., (1981) Microteaching at Edgewood College of Education, 1980 Unpublished M.Ed. (course work) Project Report, University of the Witwatersrand.

Voth, J.A., (1968) Effect of video tape recording feedback on teaching behavior of student teachers, Paper presented at AERA Annual Meeting.

Wagner, A.C., (1973) "Changing teaching behaviour: a comparison of microteaching & cognitive discrimination training." Journal of Educational Psychology, 64 299-305.

Waimon, M.D. & Ramsayer, G.C., (1970) "Effects of video feedback on the ability to evaluate teaching." Journal of Teacher Education, 21, 1, 92-95.

Waldrop, C.S.D., (1970) "A comparison of the effects of four microteaching environments on fourth-grade pupils' coping behavior and verbal response." Dissertations Abstract International, 31/A/5260.

Ward, B.E., (1970) A survey of microteaching in NCATE accredited secondary education programs, Research & Development Memorandum No.70, Stanford, SCRDT.

- Webb, J.N. & Brown, B.B., (1970) "The effects of training observers of classroom behaviour." Journal of Teacher Education, 21(2) 197-202.
- Wells, H.G. (1934) Experiment in autobiography, London, Gollancz.
- West, N., (1983) The course document, University of Sussex PGCE course, mimeograph.
- White, D., (1983) Teaching Skills, Pretoria, Academica.
- Wilshaw, A.G.B. & Telford, D., (1976) "Microteaching children on the college campus: an evaluation." Journal of Educational Television & Other Media, 4(2) 27-30.
- Wood, C.C. & Hedley, R.L., (1968) "Training Instructional Practice (TIP): Observation on student reaction to the use of videotape recordings (VTR) in simulated classroom situations." Canadian Education & Research Digest, 8 46-59.
- Woods, P. (1985) "Sociology, ethnography and teacher education." Teaching and Teacher Education, 1, 1, 51-62.
- Wragg, E.C., (1971) "The influence of feedback on teachers' performance." Educational Research, 13(3) 219-221.
- Wragg, E.C., (1974) Teaching teaching, Newton Abbott, David & Charles.
- Wragg, E.C., (1982) A review of research in teacher education, Windsor, NFER-Nelson.
- Wyckoff, W.L., (1973) "The effect of stimulus variation on learning from lectures." Journal of Experimental Education, 41(3) 85-90.
- Yeany, R., (1977) "The effects of model viewing with systematic strategy analysis on the science teaching styles of pre-service teachers." Journal of Research in Science Teaching, 14, 3, 209-222.
- Young, M., (1958) The rise of the meritocracy, London, Thames & Hudson.
- Yule, R.M., (1981) "Microteaching as applied in various institutions in England & Scotland." Journal of Educational Television, 7(2) 64-67.
- Yule, R.M. & Steyn, P.J.N., (1982) "Microteaching as applied in various institutions in the Republic of South Africa." South African Journal of Education, 2 41-45.
- Yule, R.M., Steyn, P.J.N., Soobiah, C. & Davies, J.K., (1983) Teaching and microteaching, Johannesburg, McGraw-Hill.